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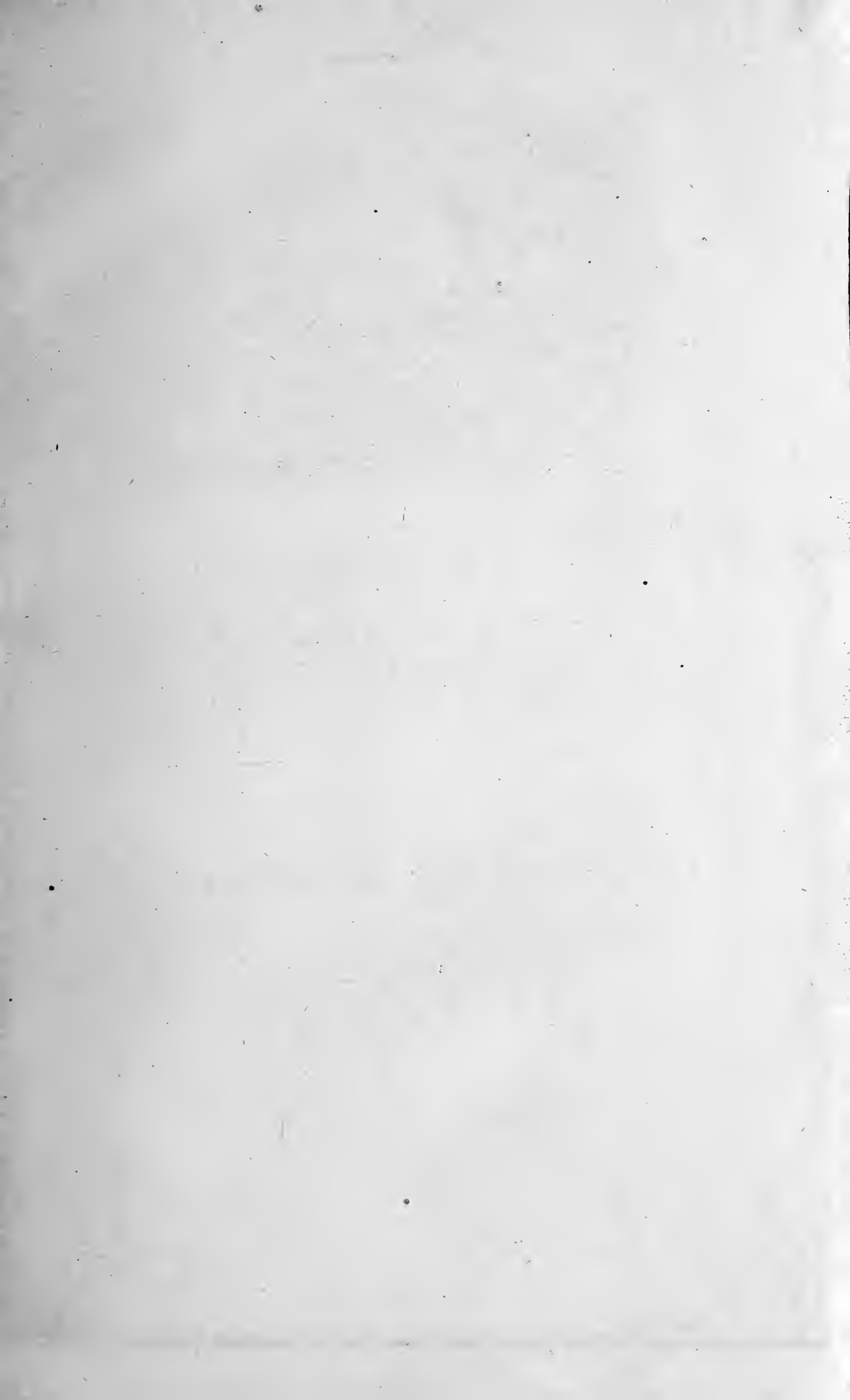
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THE
FLORIST, FRUITIST,

AND

GARDEN MISCELLANY.

1857.

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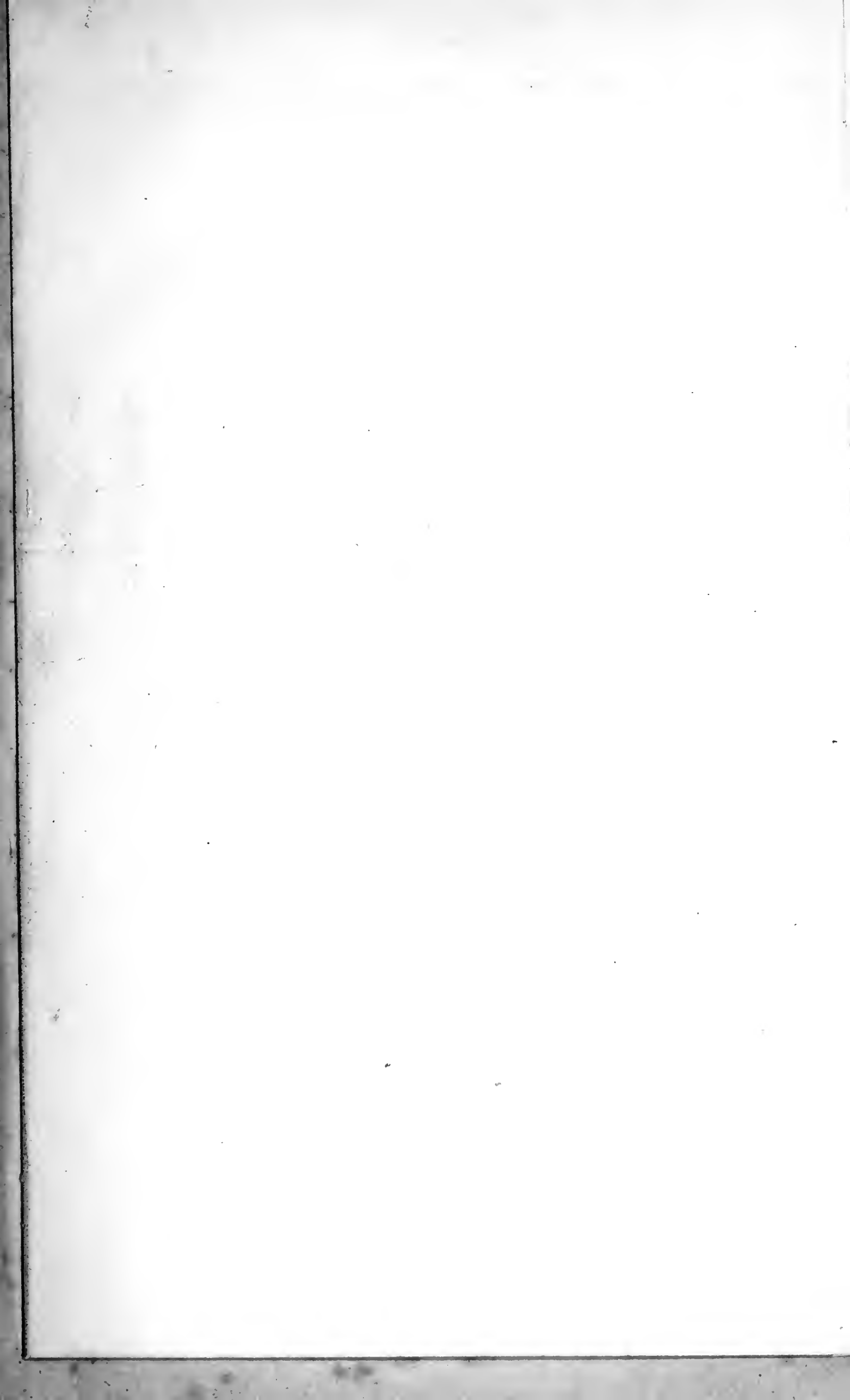
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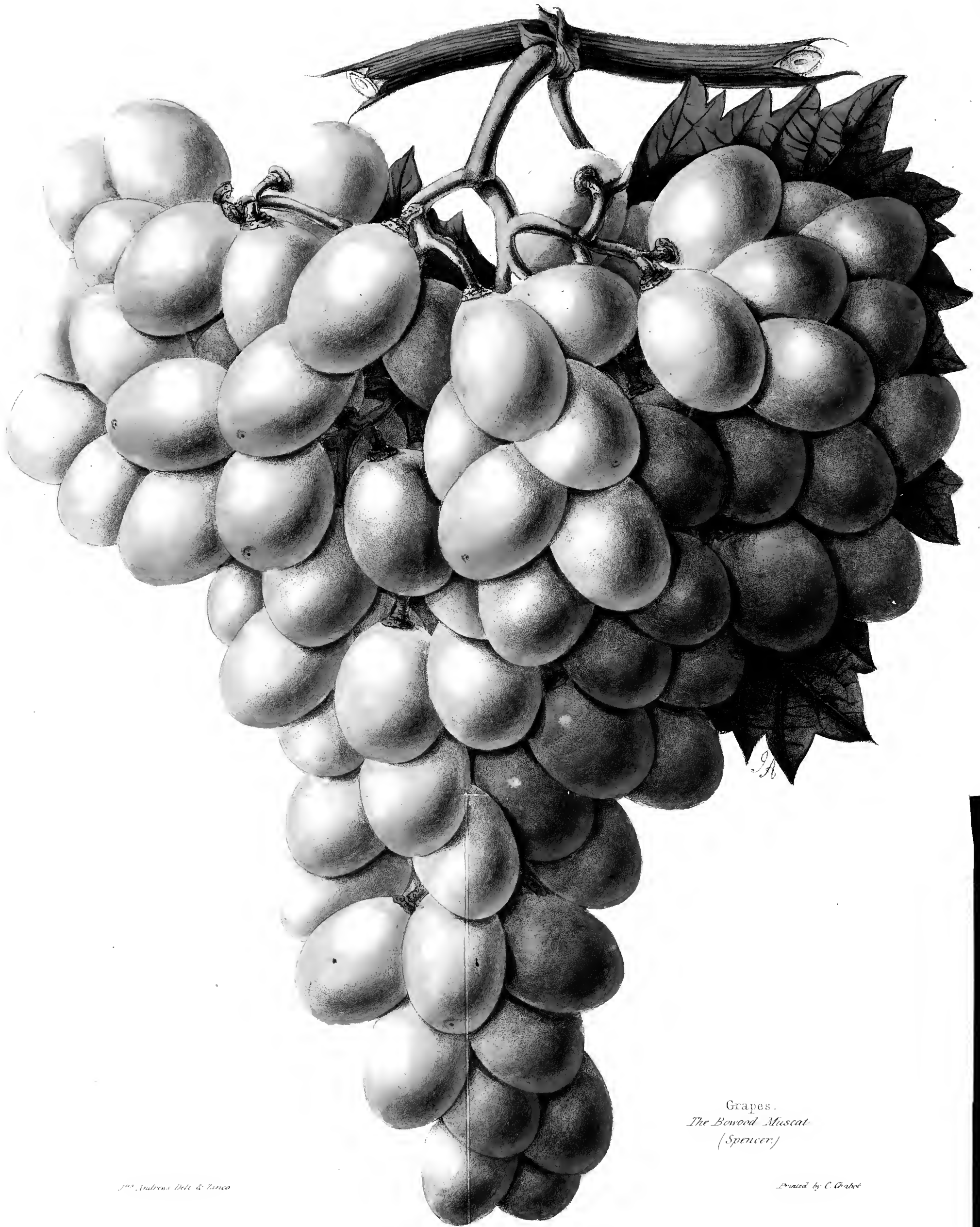
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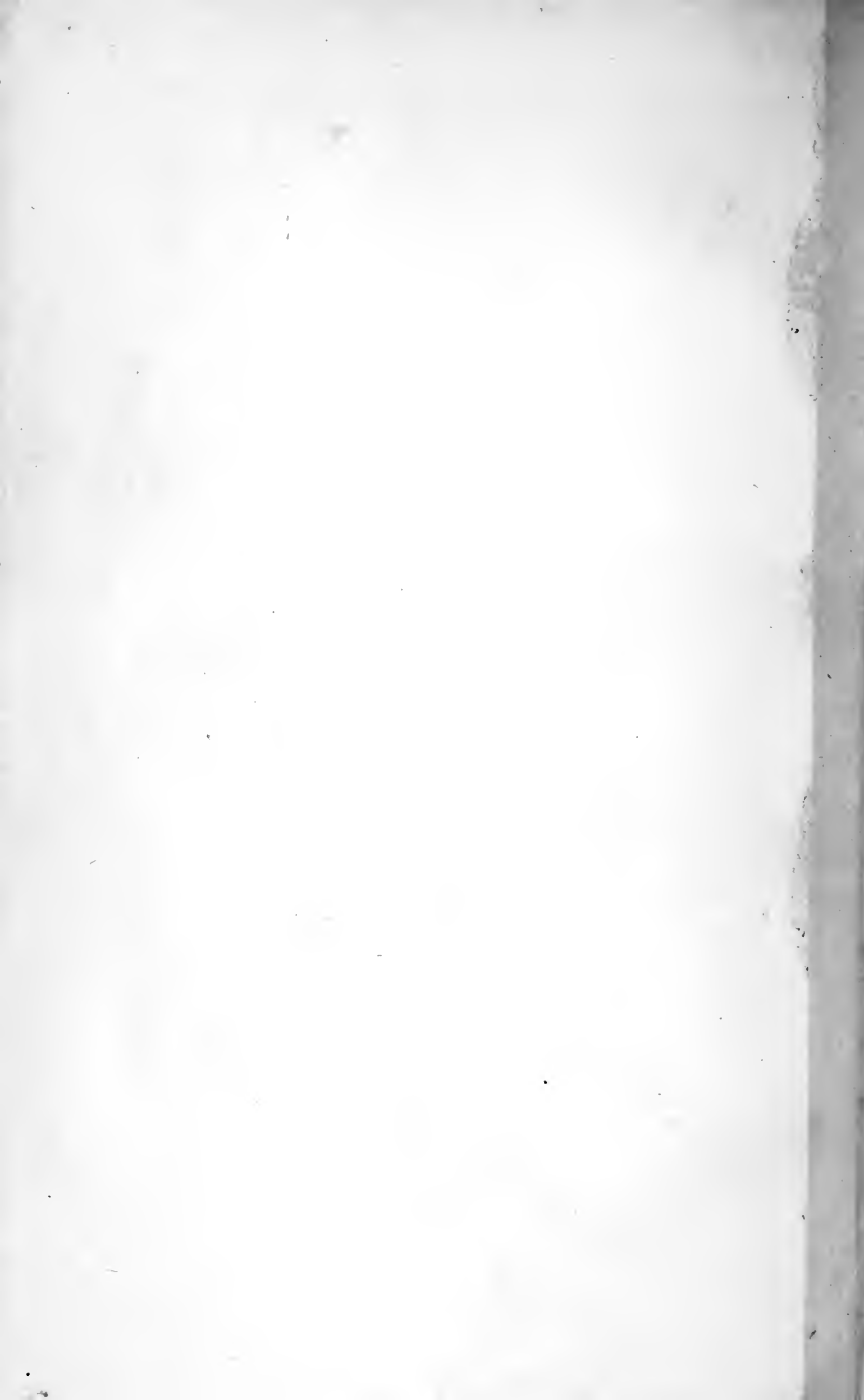
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Grapes.
The Bowood Muscat
(*Spencer*)



THE
FLORIST, FRUITIST, AND GARDEN
MISCELLANY.

THE BOWOOD MUSCAT GRAPE.

(PLATE 122.)

THIS is a seedling which was raised at Bowood by Mr. Spencer, between the Cannon Hall and Muscat of Alexandria. It differs from both its parents in several important particulars. The bunches are broader and shorter than those of the common Muscat; the berries are larger, oval, and sometimes pear-shaped, of a yellowish white, changing to a deep amber when fully ripened. As every flower sets, the bunches are invariably full and compact, with the berries of a uniform size; it requires the bunches to be well thinned out to allow the berries to attain their full size. It has been proved to set well in a temperature comparatively low, but it requires nearly the same amount of heat to ripen it as the common Muscat: although it comes to maturity rather earlier than that variety it keeps equally well, if not better. The habit is scarcely so strong as that of the Muscat, and it is eight or ten days later in breaking in the spring. It is a most prolific bearer, producing three and four bunches to each shoot, and has been proved to fruit admirably in pots.

Bunches of the Bowood Muscat were sent in November last to the Horticultural Society for the opinions of Dr. Lindley and Mr. Thompson. At page 757 of the "Gardeners' Chronicle" for Nov. 15, Dr. Lindley says, in reference to these specimens, "We have never seen a variety of greater promise, the appearance of the bunch and berries is most magnificent, the quality is much the same as the Cannon Hall Muscat."

Of this variety Mr. Thompson gives the following description—"This is a very fine thing and perfectly distinct. The bunch is very large and well shouldered, with strong footstalks. Berries very large, oval, inclined to obovate. . . . The skin was greenish yellow, or of the same colour as that of the Muscat of Alexandria; but it was evident that the berries had not acquired the colour of complete maturity.* The flesh was firm, juicy, with a rich

* It was explained that the bunches were scarcely ripe, owing to the Vines being in a pit which was retarded in the spring; under more favourable circumstances they become of a deep amber, as shown in the plate, berries having been furnished to Mr. Andrews later, for the purpose of assisting him in making the colour correct to nature.

sugary Muscat flavour ; seeds 2—4. This variety, from its being an abundant bearer and a free setter, forming magnificent well-shouldered bunches, appears to be highly deserving of cultivation.”

The following is an extract from the Report of the Meeting of the British Pomological Society, Nov. 6, 1856 :—“ Mr. Spencer, of Bowood, brought bunches of his Bowood Muscat. It had been previously exhibited before the Society, but this time was riper and in a better condition to be judged. Its flavour was pronounced quite equal to the Muscat of Alexandria, and was esteemed superior to that variety in the form of the bunch, which is compact and well-shouldered. It also appears to have the desirable acquisition of setting well.”

The plate was prepared by our artist, Mr. Andrews, from one of the bunches exhibited.

DO EXHIBITIONS ENCOURAGE HORTICULTURE AS THEY OUGHT?

ARE our horticultural exhibitions influencing improved culture in plants, flowers, and fruits as they should do? This is a question that has often occurred to us when inspecting the country exhibitions, particularly in the northern counties, and we fear that in many respects the question must be answered negatively. That the great metropolitan shows have done very much for the advancement of horticultural science, no one can deny, although occasionally we see mistakes committed, as shown in the three large Fancy Pelargoniums exhibited by Mr. Thomson, at the last July show in the Regent's Park. In this instance we saw that by giving plants *too much* pot room—overpotting them—the object the cultivator had in view, of obtaining masses of bloom, was frustrated, and an exuberance of growth was the result. It must have been evident to all that a great mistake had been made, for in the immediate vicinity of these plants were other plants nearly as large, and completely covered with bloom, in pots about half the size. The metropolitan shows form a great school in which the science of horticulture can be studied from practical examples, but we regret the lessons there offered are not more closely followed in general practice. Not but what many of the provincial horticultural societies are much in advance of others, as at Oxford, Derby, Manchester, Norwich, Skircoat, Brighton, Clifton, Bath, and other places, where we meet with specimens of horticultural skill worthy of a high position at the Crystal Palace or Regent's Park fêtes. We name Halifax and its surrounding neighbourhood with pleasure, as a great many well-grown stove and greenhouse plants are to be seen there ; still at the Halifax autumn show we observed much that denoted want of ordinary care in the culture of plants that were exhibited there. Many of the specimens had not received the *thought and attention necessary to good culture*, and these remarks apply to a great many country exhibitions. Further north, at Glasgow and other places, the same results were visible, and at the September show at Newcastle-on-Tyne, we never saw such a

display of bad culture brought together. Here we noticed Verbenas in pots too large by half, grown too freely and badly bloomed, having been kept in close frames or houses, and not allowed air enough. Here, too, were miserable Achimenes in very large pots, scarlet Geraniums weakly and yellow from confinement and inattention, and a miserable Fancy Geranium that would be dear at a groat, put up for the prize for a specimen, and no doubt received it. It is a practice here and at many other provincial shows to give prizes to the best yellow, white, scarlet, and other coloured Dahlias—that is, the best in each class; and at Halifax, Shipley, and Newcastle we saw a large number of flowers that were a disgrace to any exhibition. In short, in all these instances we fear not a bloom was to be found of *good* quality in the classes for single blooms. This statement will no doubt cause some displeasure amongst the growers, but it is the truth, and they ought to do better, and can easily do so. *Thought* will do it. Let them sit down in the dormant months of winter and seriously reflect if something cannot be done so as to produce better culture next year. Many may, and perhaps will, exclaim—Look at the season! And yet Mr. George Edwards, of York, not many miles distant, showed fine blooms at Shipley and Halifax. If one grower can do so, why not the rest? The truth is, the same care is not brought into play; but there is no reason why it should not. The fault lies in not paying sufficient attention to getting the plants strong in pots before planting out—in planting out too soon—in not turning up and enriching the soil in winter—and in not paying proper care to the tying out, disbudding, and nursing of the plants when growing. The necessity for all this we have pointed out on former occasions, and have shown how it was to be done.

One of the chief reasons why we do not see better productions at these exhibitions is because prizes are not withheld from subjects undeserving of an award. Judges should in all cases have the power to withhold prizes from subjects not deserving such a distinction, and should be instructed to do so. No greater mistake can be committed than giving prizes to the best productions presented when not deserving, simply because they happen to be the best present. Exhibitors know this to be the rule, and they are careless; but if they knew that decidedly inferior productions ran the risk of being disqualified, greater care and attention would replace the inattention and inefficiency we complain of. As we before observed, empower the judges to withhold prizes from subjects not deserving of distinction. Select as censors men who are strictly honest, and thoroughly understand what a good flower, or well-grown plant or fruit is, and invest them with full power to withhold prizes when the subjects are not deserving of them. Let such be clearly stated in the schedules and the rule be strictly followed, and great benefits will arise from it. While on this subject we cannot refrain from alluding to the questionable utility of a plan peculiar to the north and midland districts, of withholding from the judges the names of the exhibitors. Such a step does not prevent dishonesty if the exhibitors and judges are disposed to act unfairly; if the disposition exists they will do so under any circumstances, and although it is intended that the names of the exhibitors should not be known to the

judges, yet in many instances they are, and no one can deny it. At Edinburgh, in September last, we assisted as a judge, and there the plan of affixing a motto and not the name of the exhibitor is adopted, this motto being in the exhibitor's hand-writing. We immediately recognised the hand-writing of many, being well acquainted with it. And is not this often the case when this peculiar plan is adopted? Away with this absurd secrecy! say we. Away with it! and be honest and trusting. Insist on honesty in others, and any departure from it must meet the degradation it deserves. Make it compulsory, too, that everything should be named correctly, whether plant, flower, fruit, or vegetable. The necessity for this must be obvious, when we see with what interest the productions at the various flower-shows are inspected. At Newcastle-on-Tyne, two or three bystanders were gazing with some degree of wonder on a Melon, and asked us what it was. One of the great aims of horticultural societies should be, through their exhibitions, to encourage a taste for horticultural pursuits, and to encourage the production of new introductions of sterling merit, and it is of importance to all that everything should be named, to enable those who frequent the exhibitions to make a selection for their own gardens.

Among flowers, none is more extensively cultivated northwards than the Dahlia, and yet we know of no plant—the Pelargonium excepted—more mismanaged. Many will exclaim, with some degree of bitterness—“Look at the season.” Granted. We look at the season, and confess to its having been unfavourable, and have still seen a fine display of bloom in various districts; but what we complain of is that even in good seasons *better culture* is not exhibited, so as to produce good blooms of good quality. We trust Mr. Sivewright will pardon us for alluding to his very fine plants of the past season. In Scotland, the season for Dahlias has been exceedingly unfavourable, and yet this gentleman, in his garden at Cargilfield, near Edinburgh, had some of the finest plants we have ever seen, and plenty of fine blooms. The plants were shifted early into large pots and grown on, and became strong vigorous plants before they were planted out. They were not planted out, we believe, until the end of June, when the weather had become settled, and all fear of a check had passed away. We need scarcely say that this is the plan recommended by us for years past, and this is one of the secrets of success in Dahlia growing. The universal fault is planting out too early, and the plant receives a severe check and becomes *wiry*, and does not begin growing for two or three weeks after, and then in many cases does not swell readily. The plant should have no check whatever after being planted, but be encouraged to start into growth at once. Ah! but how are we to grow them on? exclaim many who cannot think. If you have a frame, use it; if not, select a sheltered corner of your garden, run up a board or two, or some matting and stakes, about 18 inches high; make a dry bottom of ashes, of which there are enough and to spare in the north; repot your plants and place them there for shelter, covering only in case of frost, but giving all the air you can at other times. Do this, and you will make fine plants and save time; but do not plant so soon.

Rules, simple as these, apply to plant-growing generally. Those men who have become eminent as our best cultivators are men of

thought and action. The means and appliances they adopt, if not exactly within the reach of all, can be closely imitated, if men will only think. The evils of bad management in plant culture will be obviated, if cultivators will not attempt to do too much—do everything at the proper time—try to grow a few things well and not too many badly—air well—keep down damp, and keep everything clean at all times, and particularly so, as well as dry, during the winter. All plants require a season of rest, and without this, be assured, you will not see them blooming or fruiting in perfection.

To return to the point from which we started—"Do exhibitions encourage horticulture as they ought?"—we fear a somewhat unsatisfactory answer must be given. They should be made the means of bringing into notice improved culture, and be made to encourage it, and to further the introduction of new fruits, vegetables, &c., holding out the means of ascertaining which of the various introductions are valuable and which are not. Local horticultural societies should also be made the means of disseminating information as to which sorts of fruits and vegetables are suited to their immediate localities, and inviting specimens of their produce. These societies are now too often managed for the convenience of a few growers, instead of being made generally and practically useful in encouraging improved culture, and discouraging all productions exhibiting a want of proper care and attention.

NOTES ON SOME RECENTLY NEW PLANTS.

Fuchsia Dominiana.—(See plate 96 of *Florist*, for the year 1855.) This *Fuchsia*, which is a hybrid from *F. spectabilis* and *F. serratifolia*, is undoubtedly one of the most magnificent autumn and winter blooming plants in cultivation. When it was first known to the public it was feared by many that it would prove, like the parent *spectabilis*, a shy bloomer. Such, however, is not the case; for while it much resembles that beautiful and distinct species in flower and foliage, the habit is much dwarfer, and its flowers are produced in great profusion. A plant which we saw in September, growing in the open air against the *north* end of a propagating-house, in the Messrs. Veitch's Exeter Nursery, was literally one mass of bloom. The plant in question was planted out early in the summer of 1855. It grew vigorously, and in the autumn produced a quantity of bloom. When winter approached a glazed frame was placed against the plant; this, with the assistance of a mat, was sufficient protection during the last severe winter. When mild weather returned the frame was removed, and the plant again fully exposed to the air. Early in the season the plant began to grow freely; at the time we saw it a space of wall was covered nine feet by seven, and, as we before stated, was a complete mass of bloom; we understood it had been equally gay for many weeks previous. The points of the branches, too, were each crowded with flower-buds, so that a succession of bloom for a length of time is certain. Mr. Dominy is of opinion that if planted in a conservatory, or against a conservative wall, it would continue to bloom during the greater part of the year.

The compost in which Messrs. Veitch's plant is growing consists of good loam, peat, a little rotten manure, leaf-soil, and sand. In planting, a situation should be selected where it would not be exposed to the full rays of the sun—a north aspect, or where it could be otherwise shaded, would be most suitable. As a pot plant it is very valuable; we have seen it in great perfection so late as February, when its bright scarlet flowers and dark glossy foliage render it a conspicuous object.

Lapageria rosea.—This is acknowledged to be one of the most beautiful greenhouse creepers in cultivation, and yet how seldom do we see flowering plants! It has been considered difficult to manage, yet this is far from being the case: certainly young plants do not grow freely in many instances; we are inclined to think, however, that this arises in some measure from improper treatment, for when once the plants are fairly started few grow or flower more freely. From what we have seen of its cultivation, we are of opinion that a house somewhat warmer than an ordinary greenhouse is requisite, when the plants commence to grow in the spring. We would, however, by no means recommend the stove, although some have succeeded in growing good specimens in that structure. One that was planted some years ago in the Messrs. Veitch's Nursery, in a prepared border of a conservatory in which Camellias are grown, was perhaps one of the finest plants in this country, though now much cut for propagating. In this house a very regular temperature was maintained during the months of March and April by means of gentle fires, in cold weather, at which time the Camellias are making their growth. Every season, about this time, a number of young shoots makes their appearance at the base, which much resemble small Asparagus when rising from the ground. With the *Lapageria* this is a critical season; for if a slug is in the neighbourhood it will be sure to find out this plant, and we are not sure that this is not the cause of disappointment in the plant not growing, for the buds, unless protected, are frequently destroyed before they appear above the soil.—When the growth of the Camellias is matured, air is always admitted in great abundance; in fact, the house is thrown open to admit as much air as possible. From this time the *Lapageria* always begins to produce its blooms, and we have seen in the month of August upwards of seventy expanded blooms on this plant at one time. At the horticultural exhibition at the Crystal Palace, in June of the present season, the Messrs. Veitch exhibited a pot plant of the *Lapageria*, which was admired as a “beautiful specimen trained in the form of a parasol, whose fringe was represented by a row of rich crimson blossoms.” This plant was in bloom some short time previous to that show, and from that time had continued, till the end of September, to produce a succession of bloom; at the time we saw it there were thirteen expanded blooms, with numerous buds. It was standing in their Heath-house, where we understood it had been growing throughout the summer. Mr. Dominy recommends soft fibrous peat and a small portion of leaf-soil, and to be liberally supplied with water throughout the growing season.

Rhododendron Princess Royal.—This beautiful new hybrid, from *R. jasminiflorum* and *R. javanicum*, was raised by Mr. Veitch, and flowered

for the first time about two years ago, at their Exotic Nursery. From such parents as the above a good variety was reasonably expected, and although in this respect there was not disappointment, still it was a matter of surprise, when the first seedling plant expanded its blooms, to find that from the pure white of *R. jasminiflorum* and the bright orange of *javanicum*, a pink should be produced. We think this as good an illustration of the uncertain results of the hybridist as any that has come under our notice: where care and pains are taken to ensure success disappointments often occur, while, on the other hand, the operator is frequently rewarded by a gem which exceeds his expectations, and is as dissimilar from what he expected as it is from the parents from which it was produced. Such was the case in this instance; for while various speculations were freely discussed, and every one appeared to have his *beau-ideal* respecting the size, shape, colour, &c., all were alike surprised with the result. In habit this *Rhododendron* is intermediate, possessing the compact bushy nature of the white parent, while the foliage, though somewhat smaller, has the glossy green of *javanicum*. In shape the flower much resembles *jasminiflorum*, though considerably longer, while in texture it is dissimilar to anything we have seen, the whole flower being thick and glossy—resembling the polished surface common to wax flowers, and of the most beautiful delicate pink. Like *R. jasminiflorum*, it appears to possess the recommendation of flowering the greater part of the year. We believe that plants have been exhibited at most of the metropolitan shows during the season, and in September there were still several plants in bloom.

Desfontainea spinosa.—This beautiful evergreen shrub was introduced to this country from Patagonia by Messrs. Veitch & Son, and has been offered for sale about two years. It was recommended as a free-flowering hardy plant, of great beauty—a character that it still retains. It has long been customary in this nursery to cultivate specimens of all the leading classes of plants, so that there is great facility afforded purchasers in selecting such plants as are adapted to the end in view. Their extensive collections of specimen Orchids, Pitcher Plants, Ferns, Heaths, Azaleas, Camellias, &c., are too well known to need further mention here; while visitors to the nursery will also recollect their specimen plants of Conifers, *Rhododendrons*, ornamental deciduous trees and shrubs, Roses, herbaceous plants, &c. The value of this system, as regards the testing of new plants, can scarcely be overrated; for while the public has an opportunity of judging the merits of plants, respecting their beauty of flower or foliage, there are also matters of detail which are not of less importance to the buyer. When first a plant arrives at this establishment, the first consideration is how must it be treated; and from this principle originates the various experiments with new plants, the result of which is, in most instances, a correct knowledge of their habits and requirements before they are offered to the public. For the *Desfontainea* it is found, after the usual experiments, that a light peaty soil is most suitable, and that it requires a liberal supply of water at the root during the summer months. The plants treated thus are growing freely, and have during the summer produced large quantities of bloom—in fact, there were still

a number of blooms on the plants at the time of our visit. When not in flower, the *Desfontainea* has much the appearance of a miniature Holly-bush. The flowers are tubular, about two inches in length, and being of a bright orange scarlet tipped with yellow, are exceedingly pretty. Certainly, this is one of the very best of the Messrs. Veitch's recent introductions.

Myrtus apiculata.—There were several fine plants of this Myrtle growing near the last-named plant. It appears perfectly hardy, and forms a dense evergreen bush of great beauty. It is also valuable for the profusion of bloom which it produces.

The white corolla'd Fuchsias which created so great a sensation two or three years ago are now becoming numerous, several new varieties having since been raised. The best we have seen of this section is Veitch's Princess Royal. The sepals are longer, better reflexed, and brighter in colour than any of its predecessors; there is also a decided improvement in habit. Their Fuchsia Malakhoff, which was sent out last season, is a striking double variety. The corolla is of a deep violet, and quite an inch in diameter. Segments of the same colour as the corolla are frequently attached to the stamens, giving a curious and pretty appearance to this monstrosity.

Geranium quercifolium floribundum.—This seedling Oak-leaf Geranium has been exhibited for the first time during the past summer, and spoken favourably of as being a valuable variety for bedding purposes. Its flowers are as large as those of the Pelargonium, of a bright rosy pink, with dark spots on the upper petals, and it appears—as its name implies—an abundant bloomer. This section of Geraniums, though many of them are very beautiful, is not much used for bedding purposes, on account of their not producing a sufficient mass of bloom. When planted in the ordinary way this is invariably the case; but if planted in a shallow soil, or the plants plunged with the pots in which they have been grown, they flower profusely, and are then much admired. If the old plants can be preserved through the winter, and again planted, it will still increase their tendency to flower. As pot or vase plants the Oak-leaf Geraniums are exceedingly useful, particularly where winter-flowering plants are in demand, for by regulating their seasons of growth and rest they may be had in bloom at any season. To flower them through the winter they should be grown freely during the early part of the season, and their growth thoroughly matured.

J. SHUTER.

HINTS ON LANDSCAPE GARDENING.

THERE cannot be a doubt that had Charles I. understood the signs of the times as well as he did the Fine Arts and Architecture, he might have prolonged his reign, and have avoided the consequences which the *slight mistake* he made in reference to the people's ideas of representative government brought on himself and family; as it was, all his great

ideas of building and gardening were cut short by troublesome times. During the Commonwealth, the times were not much more favourable for gardening, and, it was not, therefore, until after the Restoration, that gardening, as an art, made any progress in this country. The residence of Charles II. on the continent, during Cromwell's protectorate, gave him a knowledge and taste for the style of gardening then getting into vogue; or, rather, which had been carried out, on a most magnificent scale, at Versailles, then the talk of the world. We find, therefore, that when the second Charles took possession of his English residences, he was ambitious to imitate the glories of Versailles, Trianon, and St. Germain, and, accordingly, invited the famous French architect and gardener, La Notre, to this country, and, acting on his plans, great improvements were effected, at the royal palaces, in the French style, and a magnificent project for Hampton Court made, but never carried out. As is generally the case, when the court sets the example, imitators were numerous, and, consequently, the "French style" became one of the fashionable affairs of the day, and, during the remainder of the seventeenth century, all the great places of that time were either improved, or re-made entirely, from French designs, furnished either by La Notre, or other French artists. Rose was the first Englishman who gave designs in this style. Rose was followed by London, who, with his partner, Wise, laid out a number of places, during Queen Ann's reign, towards the end of which it fell into disuse.

What has been termed the Dutch style, introduced by William III., who had a magnificent place in the Netherlands, in the same style, was nothing more than what La Notre had brought over in the preceding reigns. The Dutch was a mere imitation of the French style, and was called so out of compliment to "Dutch William," as he was often called by the Jacobins. The French (or Dutch) style may be described as being particularly stiff and formal. The ground operated on was parcelled out into square plots, which contained the *parterre*, often of elaborate design, and generally laid down in dwarf-box, the intervening spaces of the pattern being filled up with coloured gravel. Where the ground was uneven, it was formed into terraces, divided by low retaining walls, surmounted by balustrading, vases, &c., and the divisions connected by flights of steps, alcoves, arbours, hedges, clipped to a mathematical nicety, vegetable sculpture (*i. e.*, figures of men, animals, birds, &c., cut out of evergreen trees), statues, terms, grotesque figures, either cast or in masonry, were the usual accompaniments. Water was introduced, in the shape of fountains, basins, or in straight canals, to harmonise with the lines of hedges. At times, a deal of ingenuity was displayed in arranging the waterworks, and there was scarcely a garden with water, but what had some contrivance for playing a variety of practical jokes with this element, on the unsuspecting lookers-on. The kinds of shrubs employed for cutting out the figures alluded to above were the Tree Box, Yew, Holly, Phillyrea, Juniper, Cypress, and sometimes the Spruce Fir. The principal plants for the cut hedges were the Yew, Box, Holly, and Laurel, as Evergreens, and the Beech, Hornbeam, and Lime, for larger hedges, many of which were of immense size, and costing much pains and care to keep them to their

proper proportion. In some cases, sloping grass banks were substituted for walls, and, in larger gardens, banquetting-rooms and grottoes were not uncommon. Towards the end of the period we are describing, iron fences first came into use, in the place of walls, and iron gates, of elaborate design, and good workmanship, were substituted for the massive doors which they replaced. This was an improvement, as it gave an air of lightness and freedom to the vicinity of the mansion, and introduced a new feature, in the shape of ornamental iron-work, into gardens. Formal in all its details as was this style of gardening, there was, nevertheless, something striking in this very formality. Each bush, tree, and yard of ground bore the impress of art—of human labour, and would, consequently, strike the beholder with wonder and admiration, from so forcibly contrasting with natural scenery; and hence, to the mind not sufficiently tutored to analyze the beauties of Nature correctly, preference would be given to scenery furthest removed from what every day met the eye, and, when this came to be viewed in combination with architecture on the grandest scale, and with all the accessories of embellishment and high keeping, we need not be surprised at the admiration it created, a feeling not much lessened in the present day, nor yet that the glories of Versailles, the Trianon, St. Cloud, or St. Germain, should not find imitators with us, or a desire to resuscitate a style, which, divested of its puerilities, is so compatible with palatial grandeur. However, "Paradise Lost" had been written, and Milton's sublime *beau idéal* of natural scenery was gaining possession of the minds of men of taste; so, an article in the "Spectator," and a cutting satire from Pope, finished the matter, and away went *parterres*, straight walks, cut hedges, clipped lions and dragons, &c., &c. Extremes follow extremes, and so it was, that there were very few gardens indeed, but what made a clearance of their fine old walks and hedges, and went with the back current of public opinion.

(To be continued.)

NOTES DURING A JOURNEY TO PARIS, OCTOBER, 1856.

October 18, 1856.—Left London Bridge Station for Folkestone at 8½ A.M. Arrived there at 11, and proceeded to Boulogne, which we reached after a charming passage,—a cloudless sky, and a brilliant sun illumining the sea of glassy smoothness over which we sailed. Boulogne is a neat little town, but after you get out of it the country is very tame, and the monotony is the more striking in consequence of the total absence of everything like fine trees. All the trees are young, poly, and naked, and have evidently had too much pruning; the majority of them are Poplars. The farming is of a very indifferent character; on one side of the railway there are very extensive salt marshes. Soon after dusk we reached the old town of Amiens, where we stopped a few minutes for refreshments, and then whirled away for Paris, where we arrived at 8 P.M., and where I immediately sought the Hôtel de Londres.

The next day being Sunday I went to the cathedral of Nôtre Dame,

and the church of St. Eustache. On my way thither I was shocked to see the way in which the Sabbath is desecrated. Tradesmen, and labourers with pickaxes and shovels, enormous carts with building materials, were moving in all directions, while numbers of women were washing their clothes at 12 o'clock on Sunday morning in a boat on the Seine. Every shop was open for business; in the afternoon many were closed, to enable the owners to go to some place of amusement. Nôtre Dame is a magnificent pile of building; within it several distinct services were going on at one and the same time, while around its outer walls were the chapels of various saints, each of which had its devotees. One was decorated with Grapes and Vine branches, and a woman was there praying that the saint would grant her a good vintage. The colouring and gilding is so rich that it quite disturbs the solemn repose of the place, and mars that beautifully "dim religious light" which is so characteristic of fine Gothic buildings, and which, through the eye, appeals so forcibly to the heart of man. The busy tread of feet, and the continual hum of voices, tending, with the gorgeous decoration, to raise the impression that one had gone to "Vanity Fair" instead of a cathedral. The church of St. Eustache is (if possible) more highly embellished, and those of the Madeleine and St. Sulpice are also very beautiful. It is singular to notice how much the females outnumber the males in the churches. If there is a confession going on it is generally a woman; in fact, in all devotional acts they seem to take the lead of the sterner sex. In the afternoon I went to see the Catalan, a flower garden in the Bois de Boulogne.

On our route to this place we passed the Place de la Concorde, with its noble fountains, and along the Champs Elysées, under the grand triumphal arch, and into the very beautiful road which runs through the Bois de Boulogne (a finer specimen of a McAdamized road cannot be found).

There is a fine lake of water in this wood, and the disposition of the trees is tolerably artistic, but from the circumstance of their being all of one size, and none of them sufficiently massive, the effect is very monotonous. The Catalan, or flower garden, is a kind of Cremorne with Marionette theatres, &c., and hither the population of Paris hies in all its finery on this day. Thousands of elegantly dressed people were walking about in the *greatest order*.

Veronica speciosa is largely used here for filling up shady corners. A plant called Artemise, bearing a white flower, and common Marigolds, with a dwarf blue Aster, were the principal plants here in the beds. In a pavilion near the entrance there were some Dahlias of great beauty, shown by M. Mizard.

I walked also in the gardens of the Tuileries, and was struck with the neatness of the parterre in front of that palace. Here, too, Marigolds are the principal plants used for decoration. I noticed here very fine bushes of Persian Lilac—half standards—with large round heads covered with blossom buds, and found that these have the old wood regularly pruned out, and make an uniform growth of young, which ripens and sets its flower buds. They do the same also with the *Althæa frutex*, with the same result. But this is very mainly owing to

their dry and warm climate, on which the maturation of the wood entirely depends. The forest trees are wretched objects, and after the magnificent specimens we have at Nuneham, *only excited my disgust*. I saw a line of trees recently planted (I was told by a Scotchman, who, I should think, had never heard of Sir Henry Stuart or "protecting properties"); they were long flexible rods, 20 feet in height, without branches, but staked in all directions. In the Luxembourg gardens and the Champs Elysées they are little better. The demand for firewood and barricades must tend much to the diminution of these beautiful natural objects. The Louvre is truly magnificent as a building, and its treasures of art are quite commensurate with it. The Hotel de Ville is also a very fine edifice. In the evening all the world seemed to be out enjoying themselves; balls, theatres, and other amusements were in the ascendant.

The following morning I rose with the first peep of day and went to Fontainbleau by railway, the distance from Paris being 40 miles. On my arrival there I went first to see the kitchen garden and pleasure ground, and received the most polite attention from the head gardener there, whose courtesy and extreme civility I have great pleasure in recording. The palace is an enormous pile of most irregular building, excepting that its road frontage is in the form of half the letter H. I am informed that the interior is very beautiful, but as I was more keenly alive to natural than to the artificial beauty I did not see through it, but preferred visiting the forest. The garden front of the palace is very pretty, and there are some really fine trees here, with a charming piece of water. What flowers there were here were Dahlias in gorgeous masses, having a vivid and brilliant tone of colour which was surpassingly beautiful. On another front there is a sunk panel of beds also filled with masses of Dahlias and Gladioli, which were really exquisite. But flowers in such perfection as these are especially the children of the delicious climate of Fontainbleau. In the lake of water there were many hundreds of prodigiously fine carp congregated at a spot where they are fed by visitors, and it was very amusing to witness their gambols and scuffles for pieces of bread.

In the kitchen garden I saw some well grown Pines, fruited in very small pots proportionally; they were plunged in tan, over a chamber filled with fermenting dung. Of Grapes the wall of Chasselas de Fontainbleau, 1300 yards long and from 12 to 15 feet in height, was covered from top to bottom with fine bunches of this delicious fruit—rich, transparent, and deeply amber-coloured. Never have I seen so fine a sight before (it was the 20th of October). They were just commencing to force Alpine Strawberries, to be ripe at Christmas. Prince Albert Peas were just sown in a deep pit, to have sticks put to them; and there were immense ranges of pits for cultivating French Beans and Strawberries in. There were many cloches with Lettuces under them, and Escarolle and Cardoons seemed to be the principal crops of winter vegetables. The pits were furnished with flat-sided copper pipes, high and narrow, which are invariably used in French gardens in preference to iron; wood is burnt in their furnaces, and from the rapid manner in which copper gives off heat the fires want constant attention.

Having made a thorough tour of the gardens and grounds, I mounted the carriage, and we drove to the celebrated forest of Fontainebleau, which we reached after a short drive. Its commencement did not present to us any very striking features, but as we advanced it gradually assumed a more picturesque appearance, and on both sides of us there were occasional gigantic Beeches, with Oaks of the finest proportions, standing out in bold relief from the general woodland scenery. Many of these Oaks have names given to them, and amongst them one called La Reine, and another Charlemagne, were conspicuous for their height and straightness. Pursuing our course along the drive we came to a very beautiful spot, groups of picturesque trees and shrubs, intermingled with the most gigantic and grotesque boulders of sandstone rock overlying each other, and standing upraised upon some small point of balance, in a manner which Nature's hand alone could accomplish; from one stone there was a continued dropping of water. We now pursued our course, wending our way sometimes down a sharp inclination into a dell, and anon rising to some elevated point, from which there was a beautiful view of the forest. Proceeding thus for some miles we at length reached a large expanse of rocky surface, still more bold and effective than the first. Here we descended from the carriage and pursued a narrow trackway, winding among these curious rocks till we reached a precipice commanding a vast extent of country, and showing the mazy and tortuous path by which we had come. Here, too, we were shown a brigand's cave, from which (happily for us) all vestiges of these worthies—save the smoke-stained roof—had disappeared. After imagining what a treat it must be to be prisoners in such a "forlorn hope," and thanking our lucky stars, we returned to the carriage, and driving through an immensity of forest scenery, occasionally stopping at some fine point of view, or to admire the stately proportions of some giant of an Oak, we arrived at Fontainebleau at dusk, and were seen *en route* for Paris by railway, arriving there at 8 P.M., after a most delightful day's amusement.

I went the following day to see M. Jamin, at Bourg la Reine, a few miles from Paris, and was fortunate in finding M. Jamin, fils, at home. From him I received the most polite attention, and he gave me letters of introduction to the Royal Garden at Versailles. He showed me over his very extensive nursery of fruit-trees and Roses. He rents a long wall on a railway embankment for training his fruit trees upon. He has fine quarters of Almond stocks, which are raised from seed in baskets, in houses, and then transplanted into the quarters, where they make fine plants, and are budded in the following year with Peach buds. Two buds are put into each stock, one of a tender and the other of a hardy kind, so that if one fails the other generally succeeds; thus ensuring a crop of fruit trees.

I saw here young trees commencing to be trained on the palmate simple, and also palmate double plan. His Roses were very fine, and he gave me a nice bouquet of them. And here let me pay my tribute of admiration and gratitude to all those persons in France to whom I was professionally introduced; from one and all I received the most marked attention, accompanied by a kind courtesy which we Englishmen

do not practise towards strangers as they do, but which is charmingly grateful to the person on whom it is bestowed. If the French alliance were dependant on the sympathies of English and French gardeners, it would indeed be perfectly safe.

In my way home I called upon M. Vilmorin, the extensive seedsman, who kindly gave me introductions to see several market-gardens, and showed me a portfolio containing beautiful drawings of esculent vegetables. In the evening I went to see the shops in the Palais Royal, and was much pleased with the taste displayed in their arrangement—the merest tinsel was wrought up into charming effect by the harmony and contrast of colour.

Another day I visited the Jardin des Plantes, and was much struck with the beauty of some of the Palms and stove plants; but, generally speaking, the plants seemed fit for the faggot-pile. It is a strictly Botanic Garden, and, like those in England, prides itself in having what is called, *par excellence*, a specimen of every known plant, which consists of a few mop-like leaves protruding from the summit of a long naked pole. For many years these have been root-pruned, and repotted in indifferent soil, and then huddled very thickly together, while scale and mealy-bug infest them *ad libitum*. One great cause of this evil in Botanic Gardens is that it is generally contrived to pay the professors well, while scanty funds are appropriated to the remuneration of the curator and his staff of men, which is always too small. The munificence of the worthy professor at Oxford is, however, worthy of all honour, for he has spent much money of his own in improving that establishment, and is to the rule a bright and most honourable exception.

I was most civilly treated by M. Nieuman and M. Cappe, the gardeners here. There are here a number of most beautifully pyramidally trained Pear-trees, under the management of the latter gentleman, who is an enthusiast in Pear culture, or his trees could not be in the state in which they are. They are all “brought up in the way they should go,” and when they are old are not allowed “to depart from it.”

This garden ranks very highly as a scientific institution, and has a large number of zoological specimens also; but it is arranged in the quaint old style, and modern improvements might be introduced with advantage.

MARKET GARDENS, &c.

The first commercial garden which I visited was the seed ground of M. Vilmorin. It is in the heart of Paris. Here I saw the different kinds of Thunbergias ripening their seeds out in the open air, and several kinds of Maurandyas doing the same. This circumstance speaks volumes in favour of their climate. Here, too, I saw the Dioscorea, with roots not larger than I have them at Nuneham after two years' cultivation, but mine were pushed along in early spring in a hothouse, so as to lengthen the season of growth. M. Vilmorin says that in their climate it will require the two years' growth to bring it to a useful size; we may therefore take our leave of it as an article of general consumption. It may do for a dish (and a very good one) at

the tables of the wealthy, but it can never supersede the Potato for the poor man's use. If it requires two years' growth in the climate of Paris, it will do little here on the average of our damp, dull summers.

I next visited the grounds of M. Chevalier, at La Chapelle. He is a large cultivator of Cardoons, and most magnificent ones he had. They are planted upon a flat surface, from three to four feet apart, and are blanched by filling up between them with dried stable litter, of which immense quantities are seen in every market-gardener's yard. Celery is also blanched in the same manner. M. C. grows Escarolle largely, and has many hundreds of cloches for Lettuce. Spinach and Cauliflower are also cultivated largely by him. Nothing can be finer than his soil; it is quite a hotbed of manure. In the Rue de Reuilly I visited a garden—the proprietor's name I do not recollect. Here I saw the interesting process of planting out the Lettuces under the cloches.

HENRY BAILEY.

(To be continued.)

NEW ROSES.

IN a note at foot of Mr. Paul's article on "New Roses," page 363, you say, "Not only Mr. Paul, but many correspondents, differ from Mr. Rivers in his estimation of certain kinds." This is as it should be; for when cultivators differ many important truths are often elicited. Let us therefore hope that some of your "many correspondents" will kindly and quietly give us their opinions. In page 329 I say, "The new Roses sent out in 1855 have not cut a brilliant figure:" I ought to have added, "but few of," which gives the exact state of the case. I name but few, and their goodness cannot be disputed; for Triomphe de l'Exposition, Arthur de Sansal, Ornement des Jardins, Triomphe d'Avranches, Mathurin Regnier, Bacchus, and Victor Trouillard will hold their ground for some time. These are all I name, and your readers will, I think, be glad to know from your correspondents why they differ in opinion from my estimation of them. I repeat, that Prince Léon and Jules Margottin (as it bloomed here last summer) are unrivalled in their line of colour.

It is quite time that amateurs should know the value of those long lists of "New Roses" advertised in the spring of the year, before many of them have even bloomed once, and every Rose grower should so reduce his catalogue as to offer *only those* that are distinct and good. The day must come for this; and not only for Roses, but florists' flowers, coniferous trees, and shrubs, of which so many trifling varieties, with scarcely any shade of difference, are offered in catalogues. Fruit trees, Rhododendrons, ornamental trees and shrubs, and herbaceous plants—all these must be cut down to a sensible standard, that is, to such as are really ornamental and distinct. It only requires courage to bear the opposition that interested parties will be sure to offer. Even kitchen garden seeds require this pruning down, for how many honest, industrious gardeners—good for the kitchen-garden, but not educated

quite up to the present day—are puzzled to have to select from a list of thirty or forty sorts of Peas, Broccoli and Cabbages following after—why it requires almost the “wisdom of Solomon” to know what to sow. To return to Roses; in a catalogue of Roses for the present season, now before me, nearly two hundred varieties of Hybrid Perpetual Roses are named and described. Out of this number about ninety are rose, or shades of rose colour. Now I may be singular, but it seems to my sober ideas, that if about twenty of the best of the rose-coloured varieties had been inserted, the list would have been more acceptable to the amateur and purchaser of Roses, who, when he looks into such a vast array of names to select a few, must plunge into a sea of trouble. Now would it not be advisable for Rose growers to put on one side all envy and jealousy, and unite in giving annually a list of Roses, *every one* of which can be honestly recommended to the public. This would create halcyon days for the lovers of Roses. With my present ideas, I would rather allow a good new Rose to remain in abeyance one year, than bring it out with a chance of bringing on disappointment. A new Rose, in my opinion, should not only be a *good* Rose, but distinct in character from those already in cultivation. Many new Roses are good, well-shaped, and all that can be wished for, and perhaps, after all, only rose, pale rose, blush, flesh-coloured, or crimson in colour; in fact, with nothing new about them but their name.

Of the new varieties of the present season a few words may be interesting. M. Trouillard, the raiser of Victor Trouillard, sends out two varieties, raised from the Géant; one described as “rouge sanguin,” the other “rouge éblouissant,” in colour, and offers “the property” of three other seedlings, raised also from the Géant, for 2500 francs, or 100%. What is intended by the property is the entire stock, the purchaser having the privilege of naming the varieties, as has been the case with the Bourbon Prince Albert and others of Messrs. Paul, the Duchess of Norfolk with Messrs. Wood, and so on. This law also holds good with the property of seedling flowers purchased in England. Messrs. Lucombe and Pince bought the Rose *Devoniensis* as a seedling, and named it.

Among the new Roses of the present season we have the following, remarkable only, in my opinion, for their little variation in colour, and yet their names will serve to make a goodly list of “New Roses” for next spring. I attach their descriptions, as given by their raisers.

- Prince Imperial, beau rose carminé, a seedling from La Reine.
- Berceau Imperial, rose carné, tres tendre.
- Marie Aviat, rose lilacé.
- Comte Cavour, rose vif.
- Marie Louise de Vitry, rose carmine.
- Belle Anglaise, rose carné.
- Adelaide Fontaine, rose tendre.
- Audubon, rose clair.
- Madame Schmidt, rose lilacé, from La Reine.
- Mademoiselle Alice Leroy, rose tres tendre.
- Mademoiselle Therèse Appert, rose tendre.
- Madame Hélydy, rose virginal.
- Dr. Rushplu, rose.
- Mademoiselle de Labathe, rose éclatante.

These are all new Hybrid Perpetual Roses, and all shades of rose-colour. Now, *can* there be anything strikingly distinct from the numerous beautiful varieties we already possess? There is one new bright yellow Noisette Rose likely to put in the shade the two American Noisettes—Augusta and Alice Gray—and, indeed, all but the glorious Cloth of Gold. This was raised at Rennes, in Brittany, from Noisette Lamarque, and, judging from Rennes being a much colder place than Lyons or Angers, the birthplaces of so many of our new Roses, likely to prove hardy; it is called Triomphe de Rennes. It is a source of much vexation to cultivators of Roses for sale to propagate a large number of plants from some variety received with a good character, and then to find it good, but not distinct enough to recommend. The young plants grow so freely and bloom so finely in the nursery, that the imagination is worked upon, the Rose is thought really pretty; and so, instead of throwing away the stock of plants, which requires a great amount of courage, the variety is placed in the catalogue with a smooth character. This is why, I am led to suppose, we all retain too many mediocre Roses.

Botanists now well know to what a great extent our botanical catalogues are crowded with the names of hundreds of insignificant varieties of plants, classed as species by the older botanists and compilers, and are well aware that the day of reform must come. Let florists and fruitists and nurserymen take the initiative, and show them the way by thoroughly pruning their catalogues, retaining only plants and flowers and trees of real interest and distinctness of character.

THOS. RIVERS.

The Nurseries, Sawbridgeworth.

ORCHARD HOUSES.

IT may be interesting to your readers to be made acquainted with the success which has attended the cultivation of fruit in an orchard-house, from trees in pots and also from those planted in the borders. This house, of which the accompanying drawings are a faithful representation, was erected in the autumn of 1854. It is 100 feet in length and 25 feet wide; the north side is a wall 9 feet high, on which the roof rests, the front roof is supported by cast-iron columns. Ventilation is obtained by means of sliding ventilators under the upright glass of the front and ends—these are connected and worked with iron rods. The roof is ventilated by sliding sashes, and air is also admitted by ventilators in the back wall. The rain-water from the roof is collected in two tanks, one at either end of the house; to each a small pump is attached.

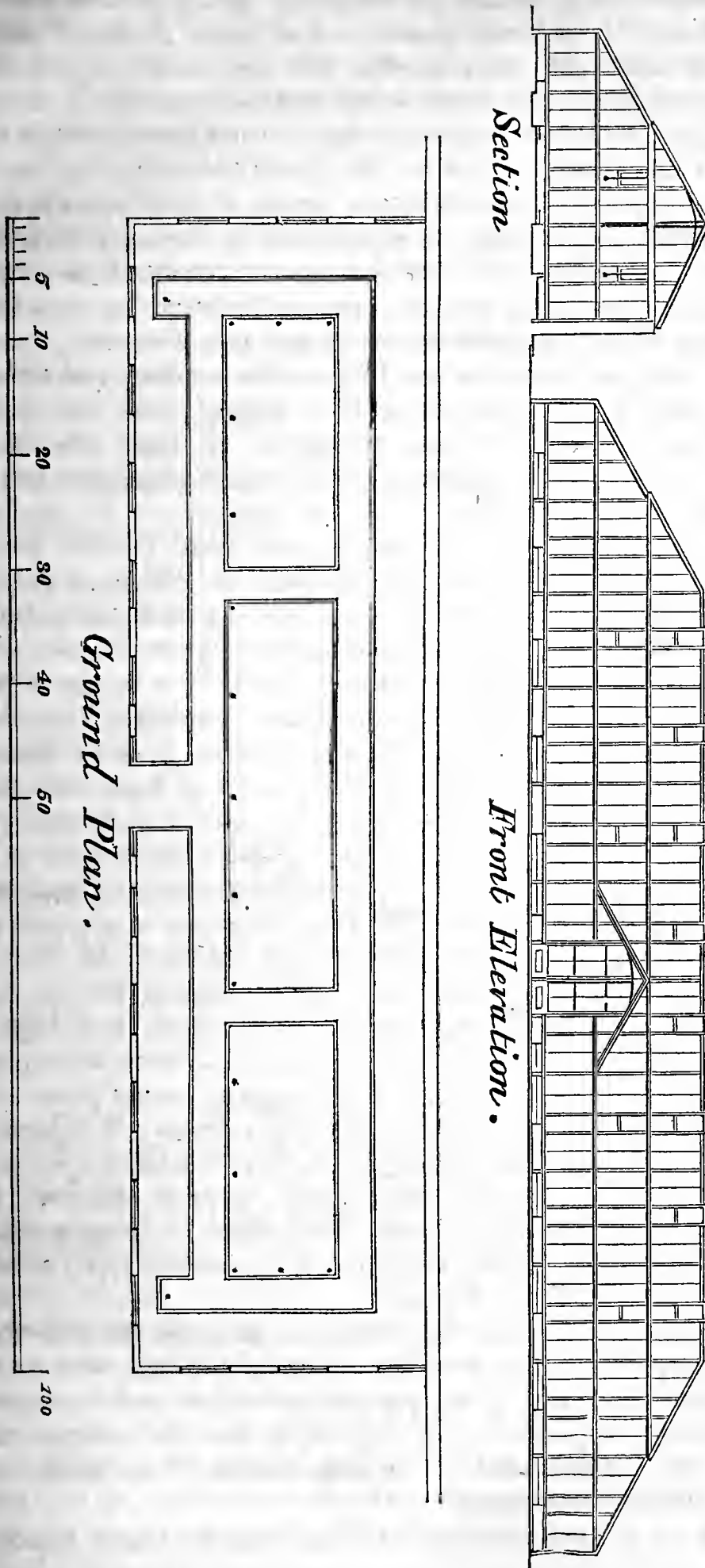
Before proceeding to enumerate the different varieties of fruit grown,

I may here mention that I consider it preferable to plant the trees out in the borders of large houses, as finer fruit, and in greater abundance, can be obtained from trees treated in that way. I do not consider it necessary to allow the trees to root into the borders when they are grown in pots; it appears to me better and more reasonable to have the pots well filled with roots, than that they should grow through into the borders and then be cut off when the plants are required to be moved. I make it a rule to remove all plants grown in pots to the open air as soon as the fruit is gathered. Vines trained up the columns and under the plate do admirably; I have had an abundance of fine and well-ripened Black Hamburgh Grapes grown in this way,* a proof that it is not necessary to heat orchard-houses to get ripe Grapes. Peach and Nectarine trees are grown as standards in the borders, and have borne excellent fruit; and so have those trees trained upon the wall, with the advantage of being the first to ripen. I have also had some very fine fruit from trees grown in pots, but not so large as from trees planted out.

The Stanwick Nectarines, grown in pots, have ripened their fruit well without cracking. I do not consider this variety so good as the Elruge; this and the Violette Hative are the best for pot culture. Plums do first-rate here, both as standards and grown in pots. One of the best is the Jefferson Plum; nothing can be finer or more beautiful than this variety when ripened under glass. Denyer's Victoria is also an excellent variety, and a great bearer. Large trees of Green-gage and Washington Plums have had heavy crops of fruit both seasons, with every prospect for next season. Pears are also successfully grown in this house in pots and in the borders. Figs are also largely cultivated here, than which nothing can do better—27 dozen of fruit was gathered this season from plants in pots. Cherries are grown in pots and trained upon the wall, and ripen their fruit well. I find the May Duke, Royal Duke, and Morello the most useful varieties for an orchard-house. A few small Apple-trees are grown in pots, and have borne fine fruit, and they well repay the trouble, if it were but to see how beautiful the colouring of the fruit is when grown under glass. Gooseberries and Currants of sorts are grown to advantage: the Gooseberries require to be placed in the most shady parts of the house—if grown in the sun they are apt to cast their leaves. I have also had Strawberries in pots in the orchard-house, but without gaining any advance upon those grown in the open air, which are generally ripe in this place from the 10th to the 20th of June.

I may repeat, that I am fully satisfied with the success that has attended the cultivation of fruit in the orchard-house, both from trees grown in pots and from those planted in borders, and I consider that under different circumstances, as regards the size of the house, they are equally to be recommended. The glass used is 16 oz. sheet, in panes of 18 inches wide, in grooves.

* We received specimens of the Hamburgh Grapes alluded to above. They were exceedingly well-coloured, good-sized bunches, with berries of average size.



GROUND PLAN AND ELEVATION OF ORCHARD HOUSE AT STANSTED.

The following are what I find to be the best varieties for an orchard-house :—

<i>Peaches.</i>	<i>Pears.</i>
Noblesse	Autumn Bergamotte
Royal George	Beurré d'Areinberg
Grosse Mignonne	Easter Beurré
Malta	Passe Colmar
Royal Charlotte	Marie Louise
Late Admirable	Louise Bonne of Jersey
Bellegarde	Beurré d'Anjou
	Citron des Carmes
	Jargonelle
<i>Nectarines.</i>	<i>Plums.</i>
Elruge	Jefferson
Violette Hative	Green-gage
	Washington
<i>Grapes.</i>	Victoria
Black Hamburg	Coe's Golden Drop
Esperione	Early Orleans
	Early Favourite
<i>Figs.</i>	Prolific
Brown Turkey	
White Marseilles	
<i>Cherries.</i>	
May Duke	
Royal Duke	

G. T.

Stansted Park, Sussex.

[This article should have appeared in our number for December, but we could not find room for it. Since receiving it we have seen the orchard-house at Stansted, which is a substantial and well-built structure, by far the best we have seen. Mr. T. informed us that Peaches and Nectarines, when planted out, produce very fine fruit, of excellent quality; but the fruit from trees in pots is not of such good quality. Pears and Plums do particularly well there, and we saw specimens of the Hawthornden and Mannington Pearmain Apples ripened there, exceedingly fine and handsome fruit, of admirable quality. There can be no question that orchard-houses are valuable addenda to large gardens; not so much for Peaches and Nectarines (as glass-covered walls and Peach-houses abound) as for obtaining Pears, Plums, Apples, &c., in such perfection for the dessert table, and ensuring a crop. The trees in the Stansted orchard-house bore excellent crops last season, and promise well for next.—ED.]

NEW PLANTS OF 1856.

THE new plants which have been either introduced or first-flowered, or more especially brought under notice in the course of the year just closed, are both numerous and varied, and comprise many choice additions to our collections. We may here especially allude to a few of the more important.

To the list of hardy annuals, the real *Collinsia verna*, which has been

now introduced, is a charming addition; it is in the style of *C. bicolor*, but with white and azure flowers. The plant which has hitherto been grown under this name is the *C. grandiflora*. Among hardy shrubs, we may particularise the brilliant yellow *Hypericum oblongum*, which will prove one of the best of dwarf hardy flowering evergreens; *Weigela coræensis*, which is a worthy companion of the now well known *W. rosea*, and is valuable as an autumn bloomer; *Amygdalus persica rosea plena*, a dwarf brilliant early blooming double-flowered Peach; and among Conifers, a handsome glaucous-leaved shrub or tree, raised by the Horticultural Society, which it is believed will be *Chamæcyparis thurifera*.

To our greenhouses have been added as choice acquisitions: *Correa cardinalis*, the most brilliant of *Correas*, but with rather spare foliage; *Gonocalyx pulcher*, described as a charming *Vaccinium*-like shrub, with brilliant rose-coloured flowers; *Tecoma fulva*, which bears clusters of very beautiful flowers, in which bright red and clear yellow are charmingly blended; and two *Rhododendrons*, *R. Blandiæflorum*, in which the flowers are narrow, tubular, and of a mixture of orange-red and yellow, recalling to mind the blossom of a *Blandfordia*, and *R. moulmainense*, with very distinct smaller flattish nearly regular white flowers. Some of the Sikkim *Rhododendrons* have also especially approved themselves; *R. Edgeworthi*, *Falconeri*, and *Hookeri*, may be mentioned as particularly handsome.

Among stove plants we may also point to some real acquisitions, such as the *Achimenes carminata splendens*, figured in our last volume; *Tydæa amabilis*, which has very pretty rosy mottled flowers in the way of *Achimenes picta*; *Gesnera Miellezi*, with handsome large rosy lilac flowers; and two *Dircæas*—*D. Blassi* and *D. lobulata*, both with rich scarlet flowers, in the way of *Gesnera faucialis*, to which, indeed, they are allied, *Dircæa* being one of the modern divisions of *Gesnera*, as *Tydæa* is of *Achimenes*. Variegated-leaved, and the now deservedly popular class of plants for grouping purposes, known as "fine-foliaged," have received one or two good acquisitions, in the *Calathea pardina* and *Tradescantia discolor zebrina*; the latter, not included in the list annexed, has leaves rich purple-red beneath, and above striped with green and yellow. Bold-leaved, but not variegated, yet a charming plant for a stove conservatory, is the *Canna liliiflora*, which unites to the tall and striking habit of *C. iridiflora* large yellowish-white flowers like Lily-blossoms. *Dendrobium Falconeri* is, perhaps, the loveliest addition to the race of Orchids, on account of the large size, and rich and varied colouring of its flowers. As choice additions, too, combining curious structure with botanical interest, and yet effective though not brilliant in point of ornament, we must add the names of *Coryanthes Sumneriana* and *Peristeria fuscata*.

With these brief introductory notes, we introduce to our readers the following more ample list, condensed and reprinted, by permission, from the present year's issue of the "National Garden Almanac." K.

ABIES CILICICA. (*Flor. d. Serres*, 2 s. i. 67, with plate). A fine Conifer from Mount Taurus. Raised in the *French Gardens*.

ÆSCHYNANTHUS FULGENS. (*Bot. Mag.* t. 4891.) A fine showy plant, with

- broad smooth leaves and rich orange-scarlet flowers, in the way of *Æ. grandiflora*. Moulmein. Stove sub-shrub. *Messrs. Veitch*.
- AMYGDALUS PERSICA ROSEO-PLENA.** (*Gard. Chron.* 1856, 244). A double flowered rose-coloured Peach, forming a valuable acquisition to dwarf early-flowering shrubs; it has a hose-in-hose calyx. China. Hardy deciduous early-blooming shrub. *Mr. Glendinning*.
- ARALIA PAPYRIFERA.** (*Bot. Mag.* t. 4897). Remarkable for its fine palmately-lobed leaves, as well as for its yielding Rice paper. The flowers are small, inconspicuous, in small umbels disposed in a large spreading panicle. Island of Formosa. Warm greenhouse shrub. *Kew Botanic Gardens*.
- ARGYREIA HIRSUTA.** (*Bot. Mag.* t. 4940). A handsome but large-growing climber, with large rosy-lilac *Convolvulus* flowers. India. Stove climber. *French Gardens*.
- AZALEA LATERITIA HYBRIDA.** A curious hybrid between *A. lateritia* and *A. amœna*, and preserving in its flowers the hose-in-hose character of the latter; intermediate in colour. Greenhouse evergreen shrub. *Messrs. Standish & Noble*.
- BARBACENIA PURPUREA** × **SANGUINEA.** (*Flor. d. Serres*, t. 1152). A series of pretty hybrid *Barbacenias* raised between *purpurea* and *sanguinea* have been raised in the Belgian Gardens; flowers of various shades of purple crimson or rose. Stove perennials. *M. Van Houtte*.
- BEGONIA ROTATA.** (*Gard. Chron.* 1856, 260). A pretty addition to the genus; leaves deep green, digitate, shining: flowers paniced bright rose. Mexico. Cool stove sub-shrub. *Horticultural Society*.
- BIOTIA MELDENSIS.** (*Gard. Chron.* 1856, 580). A new seedling *Arbor-vitæ* said to have been raised between the common *Arbor-vitæ* and the Red Cedar; pyramidal in habit, and having the cone of a *Thuja*. *French Gardens*.
- CALATHEA PARDINA.** (*Flor. d. Serres*, t. 1101). A fine mottled-leaved plant of the *Canna* or *Indian-shot* family. The leaves are large, with regular blotches of dark brown on each side the midrib; flowers yellow. New Grenada. Stove perennial. *M. Linden*.
- CAMELLIA LINDLEYANA.** (*Gard. Chron.* 1856, 245). A handsome dark crimson Chinese *Camellia*, in the way of *myrtifolia* or *Bealii*. China. Greenhouse evergreen shrub. *Mr. Glendinning*.
- CARAGUATA SPLENDENS.** (*Flor. d. Serres*, t. 1094). A showy *Bromeliaceous* plant, with broad green spineless leaves, and large spreading crimson bracts surrounding the central flower stem; the lower bracts variegated with red and green; the upper or inner ones small, yellow. *Berlin Gardens*.
- CASTANEA CHRYSOPHYLLA** (*Bot. Mag.* t. 4953). A handsome hardy tree, with ovate-oblong leaves, pale golden-coloured beneath. Naturally a largish tree. California and North-West America. Hardy tree. *Kew Botanic Gardens*.
- CHAMÆCYPARIS THURIFERA.** (*Gard. Chron.* 1856, 772). A handsome new Mexican Conifer, in the young state very glaucous. It forms a tall tree with spreading branches. Mexico. *Horticultural Society*.
- CLIVIA GARDENI.** (*Bot. Mag.* t. 4895). A handsome plant in the way of *C. nobilis*, but with large, curved, dull orange and yellow, drooping, tube-like flowers, with a spreading or funnel-shaped greenish mouth. Natal. Greenhouse perennial. *Kew Botanic Gardens*.
- COLLINSIA VERNA.** (*Bot. Mag.* t. 4927). A beautiful annual, quite new to gardens, the plant formerly known under this name being *C. grandiflora*; flowers with a white upper and blue under lip. North America. Hardy annual. *Mr. Nuttall*.
- DIRCÆA BLASSI.** (*Flor. d. Serres*, t. 1140-1). A very beautiful *Gesnera*, producing pendulous stems, which bear whorls, or interrupted racemes of large rich scarlet flowers, standing erect on the reflexed footstalks. Supposed to be from Brazil. Stove perennial. *Belgian Gardens*.
- DIRCÆA LOBULATA.** (*Flor. d. Serres*, t. 1042). A handsome plant, with rich scarlet flowers in the way of *Gesnera faucialis*, which is now included in this genus *Dircæa*. Brazil. Stove tuberous perennial. *Belgian Gardens*.
- ECHEVERIA NUDA.** (*Gard. Chron.* 1856, 280). A pretty species in the way of *E. coccinia*, with crimson flowers. Mexico. Greenhouse succulent shrub. *Horticultural Society*.

- FUCHSIA PANICULATA.** (*Gard. Chron.* 1856, 301.) Nearly allied to the old *F. arborescens*, having a pyramidal panicle of small red flowers, forming a pretty mass. Guatemala. Greenhouse shrub. *Messrs. Veitch.*
- GESNERA MIELLEZII.** A handsome dwarf-growing kind, with large rosy-lilac flowers. Stove perennial. *French Gardens.*
- GONOCALYX PULCHER.** (*Gard. Chron.* 1856, 152 with fig.) A charming greenhouse Vacciniaceous shrub with dense small foliage and brilliant rose-coloured tubular flowers. New Grenada. Greenhouse evergreen shrub. *M. Linden.*
- GUZMANNIA ERYTHROLEPIS.** (*Flor. d. Serres*, t. 1089.) A showy Bromeliaceous plant, with broad green spineless leaves, and a club-shaped spike of broad imbricated crimson bracts, from behind which the white flowers protrude in succession. Cuba. Stove perennial. *Jardin des Plantes, Paris.*
- ISOLOMA TRIANÆI.** (*Flor. d. Serres*, t. 1057.) A handsome Gesneriaceous plant in the way of *G. elongata*; flowers orange-scarlet. New Grenada. Stove sub-shrub. *M. Linden.*
- JACQUEMONTIA CÆLESTIS.** (*Flor. d. Serres*, t. 1131.) A handsome twiner, with neat foliage and pretty small blue *Convolvulus* flowers. Supposed to be from Tropical America. Stove climber. *M. Van Houtte.*
- LACHENALIA AUREA.** (*Gard. Chron.* 1856, 404 with fig.) A beautiful species of a very interesting and neglected genus; flowers rich orange, waxy, tube-like, pendent, on upright scapes. Natal. Greenhouse bulb. *Horticultural Society.*
- LAPAGERIA ROSEA ALBIFLORA.** (*Bot. Mag.* t. 4892.) A distinct variety of the beautiful *L. rosea*, with creamy-white flowers. Chili. Greenhouse evergreen climber. *Jardin des Plantes, Paris.*
- LONICERA SPLENDIDA.** (*Flor. d. Serres*, t. 1130.) A pretty evergreen Honeysuckle, with glaucous branches and foliage, and yellowish flowers, tipped with red outside, whitish within. Spain. Hardy climbing evergreen shrub. *French Gardens.*
- MELASTOMA DENTICULATUM.** (*Bot. Mag.* t. 4957.) A shrubby plant, with bold foliage and moderate-sized, nearly white flowers. New Caledonia. Stove or warm greenhouse shrub. *Kew Botanic Gardens.*
- MORICANDIA RAMBURII.** (*Bot. Mag.* t. 4947.) A neat hardy perennial with obovate leaves and purple cruciferous flowers. Spain. *Kew Botanic Gardens.*
- MUCUNA PRURITA.** (*Bot. Mag.* t. 4945.) A coarse twining shrub allied to *M. pruriens*. The flowers are large, dark purple, and hang in dense racemes resembling clusters of Grapes on long footstalks. It is one of the plants called Cow-itch. India. Stove climbing shrub. *Kew Botanic Gardens.*
- NYMPHÆA BOUCHEANA.** (*Flor. d. Serres*, t. 1033.) A handsome hybrid Water Lily, between *N. lotus* and *N. rubra*. The leaves strongly dentate, the flowers rosy-pink. Stove aquatic. *Berlin Gardens.*
- PACHYPHYTUM BRACTEOSUM.** (*Bot. Mag.* t. 4951.) A curious shrubby succulent, with very fleshy glaucous leaves and secund spikes (drooping when in flower) of crimson blossoms, having large fleshy glaucous calices and bracts. Mexico. Greenhouse succulent shrub. *Kew Botanic Gardens.*
- PENTAPTERYGIUM FLAVUM.** (*Bot. Mag.* t. 4910) A handsome shrub separated from *Vaccinium*, having deep green, glossy-wrinkled leaves, and nodding racemes of yellow tubulose five-angled flowers. Northern India. Greenhouse evergreen shrub. *Mr. Nuttall.*
- PERNETTYA FURENS.** (*Bot. Mag.* t. 4920.) A desirable evergreen shrub with the appearance of an *Andromeda* or *Gaultheria*; the leaves dark green; the flowers abundant, white, in nodding racemes. Chili. Hardy evergreen shrub. *Messrs. Standish & Noble.*
- PRIMULA EROSA.** (*Flor. d. Serres*, t. 1147.) A very pretty dwarf herb, in the way of *P. denticulata*; flowers pale lilac with yellow eye. N. India. Hardy perennial. *Zurich Botanic Gardens.*
- QUERCUS POLYCARPA.** (*Gard. Chron.* 1856, 245.) A supposed new European Oak, compared with *Q. pubescens*. Transylvania.
- RHODODENDRON BLANDFORDIÆFLORUM.** (*Bot. Mag.* t. 4930.) A very handsome and distinct species, with narrowish leaves and longish narrow-tubed

- flowers, with a slightly spreading limb; orange red externally, yellow within. Sikkim. Hardy or half-hardy evergreen shrub. *Kew Botanic Gardens.*
- RHODODENDRON BROOKEANUM.** (*Bot. Mag.* t. 4935). A splendid plant, very like, if not identical with, the orange-yellow-flowered variety (so called in gardens) of *R. javanicum*; the foliage perhaps longer, the corolla somewhat crisped at the edge. Borneo. Stove evergreen shrub. *Messrs. Veitch.*
- RHODODENDRON CAMPANULATUM WALLICHII.** (*Bot. Mag.* t. 4928). This is the *R. Wallichii* of Dr. Hooker. It has the rusty down of the lower side of the foliage much reduced, and has pale lilac flowers. Sikkim. Hardy evergreen shrub. *Kew, &c.*
- RHODODENDRON FORMOSO-DAVURICUM.** (*Gard. Chron.* 1856, 195). A hybrid raised between the two species here named; an early-flowering hardy shrub, with pale Peach-coloured flowers, considerably larger than those of its female parent *davuricum*. *I. Anderson, Esq.*
- RHODODENDRON PELARGONIIFLORUM.** (*Flor. d. Serres,* t. 1065). A garden variety; the flowers, according to the Belgian portrait, white, edged with deep rose-pink; the upper segments thickly spotted with the same, and with a darker colour down their centre. *Belgian Gardens.*
- RHODODENDRON PRINCE CAMILLE DE ROHAN.** (*Flor. d. Serres,* t. 1075). A garden variety, with flowers represented to be beautifully crisped at the edges; pink, the upper segments thickly spotted with crimson. *Belgian Gardens.*
- RHODODENDRON MOULMAINENSE.** (*Bot. Mag.* t. 4904). A beautiful shrub of moderate size, with smoothish leaves and terminal umbels of rather small, but delicate white, nearly regular flowers. Moulmein. Greenhouse evergreen shrub. *Messrs. Veitch.*
- SALVIA BOLIVIANA.** (*Flor. d. Serres,* t. 1148.) A sub-shrubby Sage, with the leaves, and dull crimson tubular flowers, with an expanded lower and obsolete upper lip; calyx purple. Bolivia (supposed). Greenhouse sub-shrub. *M. Van Houtte.*
- SALVIA PORPHYRANTHA.** (*Bot. Mag.* t. 4939). A rather spare-growing dwarf Sage, with roundish leaves and rich crimson-scarlet flowers of moderate size. Texas. Half-hardy sub-shrub. *French Gardens.*
- SALVIA SPLENDENS SOUCHETI.** (*Flor. d. Serres,* t. 1145.) This is represented to be a fine variety of one of the finest of all the *Salvias* in our gardens, but now neglected. This variety is said to be of dwarfer habit, with more numerous and brighter-coloured flowers. Warm greenhouse sub-shrub. *Belgian Gardens.*
- SCILLA NATALENSIS.** (*Flor. d. Serres,* t. 1043). A stout bulbous plant, with a long crowded raceme of pretty pale blue flowers. Natal. Greenhouse bulb. *M. Van Houtte.*
- SPIRÆA REEVESIANA FLORE PLENO.** (*Flor. d. Serres,* t. 1097). A handsome shrub, with branches of small double white flowers, abundantly produced. China. Hardy deciduous shrub.
- THUNBERGIA LAURIFOLIA.** (*Gard. Chron.* 1856, 260). A noble stove twiner, with large flowers; the colour ultramarine blue, with a whitish throat. Native country uncertain. Stove evergreen climber. *Messrs. Veitch & Son.*
- TROPÆOLUM AZUREUM GRANDIFLORUM.** (*Flor. d. Serres,* t. 1160). A decided improvement on this well-known blue-flowered climber; the flowers, as figured, are upwards of an inch and a quarter in diameter, pale violet, with a white centre. Peru. Greenhouse tuberous climber. *M. Verschaffelt.*
- TYDÆA AMABILIS.** (*Flor. d. Serres,* t. 1070). One of the *Achimenes* tribe of the same section as *A. picta*. The leaves are slightly variegated with brown; and the flowers are very pretty, bright rosy pink, mottled, paler in the tube. New Grenada. Stove tuberous perennial. *M. Linden.*
- UNGNADIA SPECIOSA.** (*Flor. d. Serres,* t. 1059). A hardy or half-hardy shrub, with pinnate leaves and pink flowers; related to *Æsculus*. Texas.
- VERBENA TENERA MAONETTI.** (*Flor. d. Serres,* t. 1129). A beautiful little Verbena of trailing habit, with pinnatifid leaves and rosy-lilac flowers, of which the segments are distinctly bordered with white in a very attractive way. *Belgian Gardens.*

VRIESIA GLUTINOSA. (*Gard. Chron.* 1856, 388). A noble Bromeliaceous plant, with a tall scape, 4ft. high, covered with red-blotched bracts, terminating in a panicle, whose branches are clothed with varnished bright red bracts, producing a rich effect. West Indies. Stove perennial. *Hon. J. S. Wortley.*

WEIGELA CORÆENSIS. (*Gard. Chron.* 1856, 676). This beautiful shrub, better known as *Weigela amabilis*, under which name it is figured in *Bot. Mag.* t. 4893, produces bunches of rose-coloured flowers, of which the edges are undulate or crisped; they resemble those of *W. rosea*, as does the habit of the plant. Japan. Hardy deciduous shrub. It flowers in autumn, and is one of the most valuable of autumnal shrubs. *French and Belgian Gardens.*

WEIGELA MIDDENDORFFIANA. (*Flor. d. Serres*, t. 1157). A shrub with the habit of *W. rosea*, but with pale yellow flowers. Supposed to be a native of Siberia. Hardy evergreen shrub. *Belgian Gardens.*

WISTARIA FRUTESCENS MAGNIFICA. (*Flor. d. Serres*, t. 1151). A fine variety, flowering in dense drooping racemes; flowers pale lilac, with a yellow blotch on the standard; violet-blue keel and wings. Hardy wood climber. *M. Van Houtte.*

ROSE SOUVENIR D'ELIZE.

THE observation of Mr. Rivers, page 329 of the *Florist*, wherein he says "*the figure of Rose Souvenir d'Elize is by far too perfect,*" gives me some surprise, as I remember perfectly cutting the specimen, and can assure you it was only one amongst many equally fine; indeed, the last two seasons Souvenir d'Elize has been the Rose of Roses, a general favourite, and imperfect flowers the exception, not the rule. The first time it flowered at Bagshot, I thought it most lovely, and even now, after growing it rather extensively this season, I see no reason to reverse my judgment. I feel reluctant in opposing Mr. Rivers, whose opinion I, as well as a host of others, look up to as a safe guide, and an estimate of the merits of a Rose from him must carry with it a large amount of consideration. I can only console myself with the idea that the Roses at Sawbridgeworth were grown under circumstances adverse to their proper development; and with all deference to Mr. Rivers' judgment, I still think, had he seen them at Bagshot, he would have felt differently towards my favourite Souvenir.

CHARLES NOBLE.

The Nursery, Bagshot, November 20, 1856.

REVIEWS.

Rendle's Price Current and Garden Directory for 1857. Messrs. W. E. Rendle & Co., Seed Merchants, Plymouth.

THE above fully maintains the high character we have given it on former occasions. The list of vegetable seeds appears to include many novelties, which are fully described for the information of purchasers, apparently with fairness and candour. Altogether, the Messrs. Rendle have taken great pains in making their selection, as well as judgment in describing all they offer for sale, and, consequently, the work affords

a useful guide for purchasers. It contains, besides, as well an arranged calendar of operations as can be written beforehand, several good practical papers on subjects connected with gardening, and other useful information.

Sutton's Spring Catalogue and Amateur's Guide for 1857.

J. Sutton & Sons, Seed Establishment, Reading.

THIS affords another instance of the care and expense bestowed in getting up these descriptive lists of seeds, &c. The list of vegetable seeds in the catalogue before us appears to have been carefully weeded (a step in the right direction), and some good novelties introduced. The arrangement of the different kinds of vegetables according to their respective seasons is judicious, and well calculated to assist the amateur in keeping up a succession. The directions also for the culture of annuals will be useful to many. The agricultural seed list comprises all the best kinds of farm produce, and Grasses, which, with their accompanying cultural directions, and quantities of seed required per acre, will prove a valuable aid to young farmers and amateurs. We have not space to say more, but can recommend both catalogues to all concerned.

Descriptive Catalogue of Fruits, by Thomas Rivers, of the Nurseries, Sawbridgeworth.

MR. RIVERS is so well known for his great experience with fruit trees, and knowledge of fruits, that we need only say, his descriptions may safely be relied on as being correct; and surely he has provided a goodly list to select from, so that persons wanting fruit trees have only to take his catalogue in hand, con its pages, and note down what they would like. The descriptions are so clear and explanatory that they cannot be mistaken, either as to trees or cost.

BRAMHAM PARK,

THE SEAT OF GEORGE LANE FOX, Esq., is situated in the West Riding of Yorkshire, close to the high road leading between York and Leeds, about fourteen miles south-west of the former, and nine miles north-east from the latter place. The approach is through a beautiful undulating and well-wooded park, over carriage roads in most beautiful order, and which we found only precursors to the grand treat in store for us. Upon entering the grounds we found an excellent kitchen garden, so abundantly supplied, as to satisfy the most fastidious professor of the cuisine art. This garden is surrounded by most excellent walls, 120 yards of the south side of which are flued, and upon which excellent crops of Peaches, Apricots, and Black Hamburgh Grapes are produced. The Peaches and Apricots are found to ripen their fruit fully three weeks earlier than upon the open walls, thereby extending the time of supply. The Grapes in fine seasons ripen beautifully upon this wall, and although this last season has been an

extraordinary cold and wet one in Yorkshire, we saw some very fine and beautifully coloured fruit upon this Vine, and which, in fact, would not disgrace the roof of any Vinery. We were struck with an excellent device of Mr. Thompson's (the very able head gardener here), for protecting the Grapes from the attacks of wasps, birds, &c. He had made a quantity of oval tin cases, somewhat after the model of a Walnut, and to open very similar, a hole being cut at the upper end similar to the hole in the lid of a mustard pot, to receive the stalk of the bunch, round which cotton wool is placed. The fronts of these cases were composed of fine wire net for admitting air and light. By their being metal they attract the heat of the sun, and by so doing, these Thompsonian cases materially assist in ripening the fruit. There are also two Vineries in this garden, in one of which were some good Muscats. We also noticed a few good stove plants, which, by their healthy appearance, seemed to say "We are quite at home." Passing from this garden we came to the framing ground, where Mr. Thompson was building a large span-roofed greenhouse, solely from his own architectural design, and we must say that it bids fair to vie with the productions of many a professor in this branch of trade both as regards utility and appearance. Here were also a very large proportion of pits and frames, all snugly retired, and well stocked with plants and bedding "stuff" for next season's display in the parterres and flower gardens, at which we next arrived, and from the gay and summer-like appearance of which at our visit on the first of October, we were quite charmed. On the east side of these flower gardens there is an aviary and a greenhouse, in which we observed several of the newer sorts of the scarlet Geranium class, grown to prove their worthiness for pot culture, Mr. Thompson being a very successful grower of these plants. Some we saw here, we must confess, we never saw equalled in any of our travels; many of these noble plants were upwards of four feet through, and between three and four feet high, and beautifully furnished to the pot rims. We will leave our readers to judge the "effect" of these plants when literally covered with blossom; they were in twelve and thirteen inch pots, and before housing them for the winter, they are cut well in, and repotted into somewhat smaller pots.

There are three distinct stages to every enjoyment of life: anticipation, reality, and reminiscence. The romance of the former was entirely lost to us in our visit here, but it is now difficult to say whether this loss was not made up by the reality that here burst upon our view, for judge of our surprise, upon being ushered upon the pleasure grounds, at seeing a perfect model of the celebrated gardens of Versailles before us, and in the same magnificent style, being no less than eighty acres in extent, with its noble broad walks (from twenty-five to thirty feet wide), cascades and vistas. One of the latter is upwards of a mile and a half in length. Many of the walks are bounded by clipped Beech hedges, from twenty to thirty feet high, others by banks of Rhododendrons. The silicious limestone comes very near the surface here, consequently the soil for the Rhododendrons has to be introduced; they, however, grow most luxuriantly, and have had to be thinned and replanted twice within these last eight years. The length of these

Rhododendron banks, we were told, if planted in one line, would reach between three and four miles. Besides these banks there are two large ovals of these plants, containing about half-an-acre each, and filled with noble specimens. The traveller over these walks, at almost every step, is delighted with some fresh object being brought suddenly into view—here, an old chapel; yonder, an obelisk towering in the distance; there, a fine artificial piece of water; further on, a flowing cascade; now, again, a stone summer-house, surrounded by a rosery of about an acre in extent, and which contains all the best sorts of Roses planted in beds: each sort is allotted a bed to itself. Again, upon leaving this rosery, other changes present themselves; amongst the rest a fine old Gothic temple and bowling-green, in the “olden style.” The water for forming these various ponds and cascades has all been artificially introduced from some distance, and must, at the time of construction, have cost an enormous outlay. These pieces of water are all highly decorated with vases, large imitation shells, and dolphin’s heads, cut out in stone; around these were also staged those noble scarlet Geraniums we before mentioned; about fifty of these, being judiciously placed, tended to lighten up and add lustre to the whole scene, in a peculiar and happy degree. At the distance of half a mile south of where we first entered the grounds, stands the obelisk, around which are many hundred acres of planting, called the “black fen,” part of which was an old oak wood; this was cleared away, some years since, and replanted with forest trees, which appear to be growing freely, and to have been judiciously thinned. What is worthy of notice in this part of the grounds, in the way of architecture, besides the obelisk, which is ninety feet high, is a well-proportioned circular temple, and a stone summer-house. The walks and rides here are chiefly Grass. There is a very broad gravel walk round both the obelisk and temple, and also between those two buildings, which are two hundred yards apart; these walks and rides are about twenty-five feet in width. On each side of most of these are borders ten feet wide, planted with Rhododendrons, Berberis Aquifolium, and double blossomed Furze; at the back of these borders are avenues of the following Coniferous and deciduous trees, planted alternately with each other, forty-five feet apart. Ten Araucaria imbricata are planted round the obelisk, at the divergence of the ten rides from the gravel walks. Many other rides diverge from the temple, and several others cross each other from other parts. The following is the number of avenues, and with what planted:—

- 1, Himalaya Fir and Laburnum; 2, Black Spruce and Lime; 3, Pinaster and Horse-chesnut; 4, Weymouth Pine and Lombardy Poplar; 5, Spruce Fir and Hickory Tree; 6, Pinus Cembra, and Ulmus fastigiata; 7, Red Cedar and cut-leaved Maple; 8, Balm of Gilead and variegated Sycamore; 9, Weymouth Pine and purple Beech; 10, Spruce Fir and Common Beech; 11, Silver Fir and scarlet Chesnut; 12, Arbor-vitæ and variegated Sycamore; 13, evergreen Oak and yellow Chesnut; 14, Scotch Fir and Sugar Maple; 15, Silver Fir and black Italian Poplar; 16, Quercus Cerris var. (The above have been planted about eighteen or twenty years, and are forming fine avenues.) The following are doing well, but have been planted only from eight to

ten years since); 17, avenue consists of *Picea cephalonica* (eight feet high) and *Platanus occidentalis*; 18, *Pinus excelsa* and Spanish Chesnut; 19, Deodar Cedar and *Ailantus glandulosa*; 20, Cedar of Lebanon and Tulip tree; 21, *Pinus insignis* and *Gleditschia triacanthos*; 22, *Taxodium sempervirens* and Lucombe Oak; 23, *Pinus Laricio* and bastard Acacia; 24 and 25 are planted with *Pinus Austriaca*, with Walnuts in one and Beech in the other. *Abies Douglasi* was found to suffer so very much from the spring frosts, seven years ago, that they were all taken up and replaced by *Taxodium sempervirens*; these are now doing beautifully. *Gleditschia triacanthos* grows slowly, and several deaths have been made up amongst the occidental Planes. The heads of the Cedars of Lebanon were rather affected by the winds, these were the only defects observable, the other trees were doing remarkably well and must, in a few years, have an imposing effect, and be in perfect unity with the other part of these magnificent grounds, which the liberal-minded proprietor freely allows the public to enjoy. Being under an engagement to visit Harewood (a notice of which place we hope to give in our next), our time was consequently much too limited to enable us to do full justice to the very able manner in which Mr. Thompson performs the very arduous duties devolving upon him in superintending this most princely place. A.

CALENDAR FOR THE MONTH.

Auriculas.—These plants will now be almost dormant and devoid of foliage. There should be no attempt made to make them more gay by exciting them into growth at present. February will be quite soon enough to commence watering in earnest, to encourage the young growth, which will have commenced. Protect the plants from severe frost.

Azaleas.—Look over the specimen plants, and let such as require it be neatly tied out, and in doing so examine carefully for thrips. Those intended for late flowering should be kept at a moderately low, but safe temperature. It should never get below 40°. The young stock should be kept warmer; they will also require more water as they begin to grow.

Camellias.—Attend carefully to the watering of these, for, if they suffer for want of it the buds will drop off without opening. Those coming into flower should occasionally have a good watering of liquid manure.

Carnations and Picotees.—Keep the plants dry, but not too much so, throughout this month, after which water more freely during mild weather. These, as well as *Auriculas*, should be kept clean of all dead foliage and aphides.

Cinerarias.—Those plants intended for specimens should have their side shoots carefully tied out, and if good blooms are sought for plenty of light and air must be allowed them. Fine plants cannot possibly be grown if they are over-crowded, therefore give as much room as

possible. Early-sown seedlings will be already in flower, and be useful as well as cheerful at this dull season, when there is a comparative paucity of flowering plants. The *Cineraria* is rapidly emerging from being a common decorative plant only, since it has been so largely patronised at our great floral exhibitions. It is remarkable what well-directed skill has done towards perfecting its culture. Plants intended for later blooming will still require re-potting into larger pots, and the main shoot should be carefully stopped. If mildew appears, it can easily be destroyed by the application of sulphur. If the plants are too thick and bushy some of the small foliage may be cut from the middle of the plant with advantage, as well as any that may be decaying.

Cold Frames.—Keep everything as dry as possible without letting anything suffer; give all the air possible that the state of the weather permits, and in frosty weather cover well up at night, and there will be no danger of anything being injured by the cold. We have several frames full of soft-wooded stuff—principally “bedding” plants—which had not been uncovered during the whole time the storm lasted, at the commencement of last month, and at the present time everything looks as healthy and well as possible.

Conservatory and Show-house.—Every pains should be taken to make these as attractive as it is possible at this season; with good management there will be plenty of things in flower to do this. Among hard-wooded plants, Heaths, *Epacris*, *Acacias*, *Camellias*, *Azaleas*, &c.; among bulbs, *Hyacinths*, *Tulips*, *Narcissus*, *Amaryllis*, &c.; and among stove plants, *Bletias*, *Justicias*, *Euphorbias*, *Aphelandras*, *Poinsettias*, *Epiphyllums*, &c.: all these will be found useful decorative plants at this season, and to them may be added *Primulas*, *Lily of the Valley*, *Violets*, *Cinerarias*, *Mignonette*, &c. Be careful not to keep the atmosphere too dry, as the flowers do not last so long in a parched atmosphere as they do when it is rather moist. Look to the climbers, and regulate any requiring it. Attend carefully to the watering. Admit air when the weather is favourable, but be careful to guard against draught. Keep up a temperature of about 45° by night, and 55° by day, allowing a rise of a few degrees by sunshine.

Cucumbers.—This is one of the most critical months in the whole year for getting a supply of Cucumbers, but with a little management the matter is easy enough; you have only to get good strong plants early in the autumn, and crop them lightly and keep a regular, steady bottom heat—by these simple means a supply of Cucumbers is easily obtained throughout the month. Keep a moist growing atmosphere, and ventilate daily if possible. Attend to the thinning and training of the shoots. Water when necessary. Sow for a spring crop; place them in a bottom heat, and as near the glass as possible.

Dahlias.—Valuable kinds, and those known to be bad to winter, should now be started by placing them in a little heat, keeping the roots rather dry until they have begun to push into growth, when they may receive some moisture. Pot roots, and such ground roots as are keeping soundly, should be permitted to remain quiet for a time—for another month.

Flower Garden.—In open weather dig borders; sweep and roll

lawns and gravel-walks ; prepare composts ; lay turf ; see that hardy plants are well protected against severe frost ; mould newly-planted shrubs ; protect autumn planted bulbs ; prune the hardier sorts of Roses, also shrubs.

Forcing Hardy Shrubs.—Remove to the conservatory all plants that are opening into bloom, and fill up immediately with others. Introduce a few plants of as many kinds as you possibly can ; by this means you get a variety. Put in Kalmias, Rhododendrons, Azaleas, Weigela, Deutzia, Lilacs, Roses, &c. ; give them a moist atmosphere, a steady bottom heat, and a temperature of from 50° to 60°, with a rise of a few degrees by sunshine. Syringe in the morning, and give air daily.

Forcing Ground.—Make fresh hotbeds, and attend to those in operation. Nothing is more simple than the forcing of Seakale, Rhubarb, and Asparagus, if the plants have been properly attended to last year. A regular, steady bottom heat is all that is necessary to excite vitality, but Asparagus must have light and air also to be eatable ; whilst Seakale must have the light and air totally excluded. Sow Mustard and Cress once a week to keep up the succession. Sow a few Radishes and Horn Carrots on slight hotbeds. Sow Kidney Beans. Put some roots of Tarragon and Mint into heat to force. Bring forward, in pots or boxes, Ash-leaved Kidney Potatoes, to be afterwards planted out in pits and frames. Have a good heap of fermenting material at hand, and keep it turned over occasionally ; you will then be ready for any emergency.

Greenhouse (hard-wooded plants).—The principal point to be attended to here is to guard against frost, and to take care that the plants are not forced into premature growth with fire-heat. Keep a night temperature of from 35° to 40°, and a day temperature of from 40° to 45°. Give air at every favourable time when the temperature outside is above 32°. Very little water will be needed this month ; the plants, however, should not suffer for want of it. *Soft-wooded Plants.*—Towards the end of the month pot young plants of all kinds, and put into a nice growing heat of from 45° to 50°. As a busy potting time will soon be at hand, see that you have in readiness a good supply of loam, peat, leaf-soil, sand, moss, clean pots, sticks, crocks, labels, paint, &c. Fumigate with tobacco the moment green-fly is seen on any of the plants.

Hollyhocks.—A little heat may be employed to excite into growth those cuttings produced from roots potted up from the ground in autumn ; apply the heat, however, very gently at first. When they have pushed shoots to about three inches in length, cut them off similar to the method used in propagating the Dahlia. Put them into thumb-pots, use a sandy soil, and place them in a mild bottom heat. The plants struck now will flower well in September. If the seed be sown in heat, and the plants produced be grown under glass till late in May, they will flower in the autumn.

Melons.—Sow a few early sorts for first crop ; place in a steady bottom heat near the glass.

Peach-forcing.—The early house may have a slight increase of

temperature, but whilst in flower a night temperature of 50° is sufficient; it should not fluctuate much either above or below this. Air should be given freely when the weather permits, and as early in the day as it can safely be given. Set second houses to work, so as to come in after the early house is done. Give the inside borders a good watering. Syringe with tepid water two or three times daily; they will not want much fire-heat, if the weather be mild, for a few weeks.

Pelargoniums.—These should be watered but sparingly for the next few weeks, when, should the weather be mild, they will require more water and close attention. Now will be a good time to tie out the shoots of the large plants, or young ones intended to form specimens. This is a simple and easy process, and has on many occasions been treated of in these pages. Allow no dead foliage to remain on the plants, or dust or dirt on the green leaves; all should be kept perfectly clean.

Pinery.—Plants in fruit will require a rather high temperature and a moist atmosphere, and occasional supplies of water, until the fruit approach maturity, when it should be altogether withheld; give a little air when the weather permits. Keep a steady bottom heat, and a temperature at night of about 60°, and by day of about 70°, to young plants. Do not give any water this month, if they will do without.

Pleasure Grounds.—Plant in open weather trees and shrubs of all kinds, and mulch well about the roots. Protect from severe frosts any plants that are at all tender, or supposed to be so. Push forward all alterations as much as possible, so as not to interfere with the ordinary operations.

Strawberries.—Give those in flower all the air possible. Water carefully. Put others into heat for successional crops.

Vinery.—Look well to the coverings of outside borders, and see there is sufficient to keep a nice steady heat. Keep a dry night temperature of 65° for Hamburgh, and 70° for Muscats, with an increase of a few degrees in day-time by sun heat. Tie down shoots, stop laterals, and thin as soon as the berries are formed. Commence second house with a nice genial atmosphere of about 45° artificial heat, and towards the end of the month increase it eight or ten degrees.

During the duration of frosty weather the florist should carefully examine his stock of things required when the exhibitions commence. Now let boxes required for the conveyance of blooms, &c., be repaired and painted. Exhibition stands should be annually re-painted and varnished. Look well also to glasses, shades, stakes, cards, Carnation pins, and the many other things without which an exhibitor's stock is incomplete; none of these but what will require examination and putting in order, that they may be fit for use at a moment's notice, when the time for their required service arrives. Remember the old adage—as important in its application to the florist as to any other profession or calling—"A place for every thing, and every thing in its place." Face old number sticks, and attend minutely to the many indoor occupations that can be engaged in when out-door operations are in any degree suspended.





One half the natural size.

Farfugium. Grande.

J.A.

FARFUGIUM GRANDE.

(PLATE 123.)

UNDER the name of a variegated Tussilago, Mr. Glendinning, of the Chiswick Nursery, exhibited this charming plant at the London meeting of the Horticultural Society in November last, as a plant sent him from the North of China by Mr. Fortune. At that time it had not flowered, and its general resemblance to our wild Coltsfoot justified the provisional name, as we hope it does that which is here proposed for it, one of the ancient denominations of the Coltsfoot itself. "It has very large round angular heart-shaped evergreen leaves, sometimes more than two feet in circumference, of a peculiarly bright emerald green, copiously blotched with patches of clear yellow, having no apparent relation to the veins. These leaves stand on woolly stalks 12 to 15 inches long, and form a magnificent tuft of surpassing beauty. If, as is supposed, they still continue to be evergreen during winter, they will form an object in the flower garden without a rival at that dreary season. Mixed with Christmas Roses, or rather forming the centre of a bed, or patch of those plants, an effect not less novel than beautiful would be produced. The flowers of Farfugium are insignificant; they stand on a woolly scape shorter than the leaves, and, like that of Coltsfoot, furnished with several spreading scales; the flower-heads cluster at the end of the scape, have a yellow ray, and a dirty purple centre." We have taken the liberty of quoting the above from Dr. Lindley's description of this unique plant in the "Gardeners' Chronicle."

To do full justice to this strikingly beautiful plant would have required a plate several times larger than our pages will admit of. We can only therefore show a single leaf, and that on a reduced scale; but Mr. Andrews has succeeded in effecting an admirable likeness, and our readers must imagine for themselves the grand appearance masses of these plants (or even a single specimen) will present to the eye when planted out. Mr. Glendinning informs us his largest plants are 12 feet 3 inches through and 1 foot high above the pot. The plant is, we understand, perfectly hardy, and retains its remarkably coloured foliage throughout the winter. We regret we can offer no additional information as to its history. Mr. Glendinning informs us that he has no information from Mr. Fortune, either on this or on the many other sterling novelties in his establishment, which Mr. Fortune has transmitted him from China. But as this gentleman is now returned, we hope we shall before long be furnished with full particulars of all the rare plants his last consignments contained.

“DO EXHIBITIONS ENCOURAGE HORTICULTURE AS
THEY OUGHT?”

UNDER this heading there is an article in last month's *Florist*, in which reference is made to some Fancy Pelargoniums exhibited by me at the last June show of the Royal Botanic Society in the Regent's Park. The nature of this reference has induced me to ask for a space in your pages to say a few words concerning it, in conjunction with the report given in the July number of the *Florist*. I was urged by many to notice the report in question immediately it appeared, as being inaccurate and unfair; but I did not do so, and certainly should never have troubled myself about it. It then appeared to me a matter of very little importance—so far as I was concerned—what the inaccuracy or unfairness of the report was, until the reference in last month's *Florist* called my attention to the matter afresh, and has induced me to trouble you with a few remarks.

Let us notice first the report of last July:—It is observable, first of all, that the “variety” of Pelargonium is pointed to as being by no means “attractive”—an opinion I am not now going to call in question. The same variety was, however, in the collection of Messrs. Frazer, of Lea-bridge, which took the second prize at the Crystal Palace last May, where only a Turner could be first. It was in Mr. Bousie's collection on the same day, and—if anything is to be inferred from the use of italics—in the opinion of the *Florist*, Mr. B. deserved the first instead of the second prize. This was decidedly my own opinion, as well as that of many others; and if my memory serves me right, this same variety was staged by Mr. Turner in the Regent's Park in 1855 (it might be in 1854; and if I am in error I shall be glad to be set right). None of these gentlemen are novices in the selection of sorts with which to do battle at these great shows. Certainly this variety has lost some of its attraction by comparison with newer sorts.

It is stated that the plants shown by me did not “form what is termed a head of bloom;” but the fact that must be patent to all who looked at them, that there were masses of bloom-buds not expanded is—shall I say—forgotten by the reporter of the *Florist*. The plants were grown for a special purpose, and, had I been able to have exhibited them the following month, it would have been seen that they not only formed a head, but a back, a front, and two sides of bloom (a thing which is not always visible), and that, too, without the aid of a single stake. Three weeks after they were exhibited they were seen—by scores of people—to be literally flower and nothing else in appearance. It is sufficiently current that they were little more than half blown on the day of exhibition.

The report goes on to state that, “considering the large pots in which they were grown, their size was not very wonderful,” yet, it is expressed with the preceding breath, “from their immense size, they

created quite a sensation." This sensation must have been great in proportion as the plants were large compared with anything seen before. Mr. Fish, in the "Cottage Gardener," speaks of them as "huge plants which created such a sensation, &c." A gentleman who is alike above falsehood and flattery, and who has been at the top of the horticultural profession, and has had the direction of the most successful horticultural exhibition in the kingdom for years, declared that he had no conception that "Fancies" were capable of becoming so large. And when I state that I have a plant of the same variety, in a pot exactly 12 inches in diameter, which now (the 13th of January) measures 3 feet in diameter, crowded with shoots, averaging 3 inches long, in want of "tying out," it may safely be left to the public to judge what might be the size of the plants in question on the 18th of June in pots 18 inches by 16 inches, though they did not then appear so large, nor were they actually, as when the extreme trusses, always the latest, were open about the middle of July. The main object for which I was urged by so many to exhibit these three large plants was to show that large symmetrical specimens could be grown without stakes; but of this the reporter of the *Florist* steers quite clear, though it was distinctly stated; and forgets too that they were not "table topped" plants nor trained to a "face," but alike full and globular all round, and covering the pots a third way down.

Last of all, there is the happy comparison of my four plants with one in Mr. Turner's collection (a splendid collection too) as having more bloom than all the four put together. But according to our way of reckoning in this county there were only three plants. This was a fortunate "hit" for the magnifying of the one side and diminishing on the other, in the imaginations of those who read the *Florist* only, and did not see for themselves. The stupidity of the judges who awarded them the "silver medal" though no prize was offered, is the only thing overlooked. If all the other *Pelargonium* prizes were rightly awarded except this, it was perhaps a matter of small moment.

Turning now to the reference of last month, which for the sake of accuracy I will quote: "That the great metropolitan shows have done very much for the advancement of horticultural science, no one can deny, although occasionally we see great mistakes committed as shown in the three large Fancy *Pelargoniums* exhibited by Mr. Thomson at the last July show in the Regent's Park. In this instance we saw that by giving plants too much pot room—over potting them—the object the cultivator had in view of obtaining masses of bloom was frustrated, and an exuberance of growth was the result. It must have been evident to all that a great mistake had been made, for in the immediate vicinity of these plants were other plants nearly as large, and completely covered with bloom in pots about half the size. The metropolitan shows form a great school in which the science of horticulture can be studied from practical examples, &c." Here it will be noticed that these plants only are singled out from among all the *Geraniums* and other things which have appeared at the metropolitan shows, and it is strenuously made to appear "to all that a great mistake had been committed." Why not

point out the mistake of the judges in awarding a medal where none was offered, and while they are instructed to withhold from "great mistakes" even when prizes are offered. It is observable, again, that the name of the grower is coupled with the plants, while the names of other exhibitions of bad cultivation are never mooted. To be sure the names of Mr. Edwards and Sivewright are *alone* mentioned in connection with fine Dahlias. The fact that these Pelargoniums required 14 days of June weather to bring them fully into flower is not noticed in this case either; that could not serve any purpose except that of fair-play.

Certain other plants in pots not half the size are declared to be nearly as large, but it will require no great penetration to see that the statement from first to last is all on one side, and that it carries in its right hand an "evident" contradiction. If there is to be exactness in any inference there must be exactness in its antecedent propositions; no conclusion can lay claim to truth that is not dependent on truths that are themselves absolute. The geometrician requires, that to deal with straight lines they must be veritably straight. Let us apply these rules to the statements of the above quotation. It will be found that the proposition stands thus:—The pots these plants were grown in were very large, the result of which was an "exuberance of growth," this was the great mistake. The other plants were in pots about half the size, there was no "exuberance of growth," or else they were mismanaged too. The question then arises how in pots half the size with no exuberance of growth plants could be nearly as large as those in very large pots with an exuberance of growth?

Surely if the metropolitan shows are to be the great schools for the study of horticultural science, some of the schoolmasters need not assert their proud position by falsifying that of their pupils, and dragging them down to show what mighty pedagogues they are themselves. But, depend upon it, they must make the best of a necessity, and be conscious of the inevitability of the progress of other people as well as themselves.

In conclusion, as to whether the object I had in view in growing these large plants was frustrated, this is best known to myself and to the scores of people who saw them during the month of July, in that position for which they were designed, and I am quite sure that if the object for which they have been so "harped on" and misrepresented in the *Florist* has been gained it will do the writer no good and me no harm.

DAVID THOMSON.

Dyrham Park.

[We regret very much to find that Mr. Thomson has taken our remarks in a very different sense from what was intended. In alluding to his plants in our last number, we inadvertently instanced them as what we considered an example of over-potting, merely to illustrate our remarks on what we considered mistakes sometimes committed, and in the country unfortunately too often so, in growing things for exhibitions.

The subject may and perhaps should have been more elaborately worked out, and there would have been no difficulty in filling the number on this subject alone, so great is its importance; but we again beg most distinctly to state that we had no intention of disparaging the productions of Mr. Thomson's culture, beyond alluding to the plants as being in larger pots than was necessary. We hold it to be a step in the right direction when plants as large can be produced in smaller pots with the same results, and we have yet to be convinced that it is not to be done.—ED.]

NEW DAHLIAS OF 1857.

MY estimate of the new Dahlias offered for sale during the past year having been published in your pages twelve months ago, and as I see no reason to make any material alteration in their position as then given, I will content myself with giving your readers the benefit of my opinions respecting the varieties that have come under my observation—such as are offered for sale in May next. Perhaps it may be as well for me to state that the ideas now expressed are derived more from an inspection of most of the seedlings while growing in the grounds of the raisers than from cut specimens exhibited. My attendance, however, either in the capacity of judge or exhibitor at nearly all the principal exhibitions during the past season has, of course, materially assisted me in preparing the following list. I have selected to the best of my ability the best *twelve* show varieties, and placed them in rotation, according to their merit; and, as the fancy class has been more enriched by the introduction of new varieties this year than is usually the case, I have chosen the best *eight*, the whole of which are important additions.

CHARLES JAMES PERRY.

The Cedars, Castle Bromwich, near Birmingham.

1. *Marion*.—A beautiful flower, clear white ground, with distinct tip of purple on every petal. A great advance over all in its class, and very constant; *quite a gem*.

2. *Lady Popham*.—A singularly handsome and delicate flower when nicely coloured; ground colour pure white, with beautifully arranged small petals, slightly tinted with deep rose, outline exquisite, but as the flower does not perfect its centre so early as *Marion*, I must give the palm to that variety.

3. *Royal Scarlet*.—A bold and constant variety; colour more crimson than scarlet, the flowers of great depth, and always with a good centre; will be a good companion to *Lord Palmerston*.

4. *Cherub*.—A medium-sized pleasing looking flower; colour nankeen, with open petals of excellent form; a constant variety.

5. *Lord Cardigan*.—A good and useful variety, although by no

means attractive, and but little shown, still I consider this flower will be grown for some years; colour dull red.

6. *Roland*.—Another tipped variety, and perhaps the most showy of the batch; petal of good form, and well arranged; ground colour white, heavily tipped with deep cherry, not unlike Lizzy, but lacking the substance and brilliancy of that diminutive model.

7. *Mrs. Edwards*.—An exquisitely neat and pleasing variety; colour pale lilac, petals perfect in shape and beautifully arranged, but too flat on the face, and wanting substance in the petal, or would hold a more prominent position.

8. *Mrs. Legge*.—A well-formed flower; ground colour dull yellow, with crimson top; the centre very good; likely to prove a very useful flower.

9. *Duke of Devonshire*.—A lilac flower of great depth and excellent arrangement; full size, and high centre. The peculiar make of the shoulder and eye causes me to fancy that this variety will prove uncertain.

10. *Midnight*.—A very dark flower, beautifully shaded, apparently constant, but, as shown, rather coarse, yet a decided beat on both Negro and Nigger.

11. *Lady Franklin*.—A small flower of good properties, but too much like Sir John Franklin, which variety I do not think it will displace.

12. *Mrs. Critchett*.—Another small buff flower, very similar to Lollipop, with rather better petal; in other respects not equal to this general favourite.

FANCY DAHLIAS.

1. *Charles Perry*.—One of the most striking and constant fancy flowers ever raised; ground colour deep lilac, every petal thickly striped with crimson; size large, with excellent centre. This variety occasionally comes self, when the colour of the flower is similar to the colour of the stripe, and in that state is quite showable as a self.

2. *Cleopatra*.—A beautiful yellow ground striped flower, in colour very similar to Spectabilis, but with open cupped petals regularly striped with crimson; an attractive variety. A few more rows of petals would have been acceptable.

3. *Conqueror*.—A deep blush flower, distinctly striped with purple, quite new in colour; of good form, and constant.

4. *Lady Paxton*.—A well-formed variety, but not very attractive; colour deep buff, with whitish tip on each petal; an acquisition in its class.

5. *Carnation*.—The purest striped flower ever raised, and the most distinct in its markings; of excellent quality; petal of good substance.

6. *Alliance*.—Another striped variety, very constant, and always showable; the centre well formed, but the flower flat; ground colour peach blossom, heavily striped and blotched with purple.

7. *Fancy King*.—A tipped flower; ground colour light red tipped with white; form tolerable; will make a useful addition.

8. *Margaret*.—A well-built striped variety, with small sunken centre; colour very similar to *Amphion*,—that is, a coppery yellow, distinctly striped with crimson; appears constant.

KENNEDYA INOPHYLLA FLORIBUNDA.

FEW plants are really so well adapted for covering pillars or training upon trellises in conservatories as this lovely Leguminous twiner. When in flower it is particularly conspicuous, presenting a blaze of scarlet inflorescence, which at that season of year imparts or affords an agreeable and harmonising contrast with other inmates of the conservatory or greenhouse.

Its cultivation is by no means difficult, as it may be propagated in the spring (May or June) by taking moderately firm side shoots and inserting them in sand, over a compost of peat and loam, under a bell-glass, to be kept close for a fortnight or three weeks in a frame, and then introduced into a brisk bottom heat, where they will soon emit roots. When sufficiently rooted, pot into 60-sized pots in sandy peat and loam, and afterwards place them in a close pit or propagating house for a few months. In the autumn, or succeeding spring, they may be planted in boxes, or, what is preferable, into the conservatory border, where nothing further will be required excepting plenty of air and a liberal supply of water during the growing season, coupled with the requisite training and thinning as may be found necessary from time to time. Should green-fly appear or become troublesome, fumigation with tobacco smoke must be resorted to, or a syringing with diluted tobacco water, which will soon eradicate this pest.

Clevelands, Devon.

H. M.

FRUIT CULTURE.

BY MR. J. POWELL, ROYAL GARDENS, FROGMORE.

No. I.

IN introducing this subject under the above title, I think I may say, without hesitation, that the cultivation of fruit is one of the most pleasing pursuits connected with horticulture, and if we take a retrospective view of the past and glance into ancient history, where we read of the existence of man, there we read of the existence of fruit. And if we trace the gradual rise of man in his mental career, we can also trace the steady improvement in fruit up to the high state of excellence to which it is now brought; from the wild Sloe we have the luscious Plum—the useful Apple from the sour Crab—and from the thorny, astringent Pear sprang all our present melting varieties.

It will be as well to give my readers some idea of the proposed plan intended to be carried out; *i. e.*, to give a series of papers on the cultivation of fruit generally, which will appear from time to time in the

various numbers of the *Florist*; and in doing so I shall avoid, as far as possible, those technical terms often used in subjects of this kind, which are difficult for a non-professional to understand; I therefore then shall endeavour to give my ideas in a plain, easy manner, so as to be readily understood, and likely to suit the wants of the amateur and young gardener.

The first point under consideration will be the *propagation of fruit*, both by seed and grafting, &c. From seed to obtain new and improved kinds by artificial impregnation; by *grafting* and *budding*, for the purpose of extending the sort, and by using proper stocks it will adapt foreign varieties to our climate, which is at times a little unfavourable to the cultivation of fruit; therefore, if we cannot suit the climate to the tree, our aim must be to suit the tree to the climate, and that can be accomplished to a certain extent by grafting on suitable stocks, giving the trees the advantage of a wall, and by raising native seedlings of a hardy and healthy class. In due course those subjects will be treated on as far as space will admit.

It is also very important that the fruit-grower should know as much of the *root* of his trees and the nature of the soil as he does of their branches, and the skilful cultivator will learn how to regulate the energy of his trees. If his soil is not naturally adapted for fruit-growing, he will have recourse to artificial means, to make it so;—if his trees are over-luxuriant, he will prune their roots to induce fruitfulness, and stimulate his trees if weakened by over-cropping. In fine, he will always aim at keeping his trees in such a condition that, while one crop is being brought to maturity, they should at the same time be preparing themselves for the next year's produce.

In pruning and training of the various fruit-bearing trees, if the rules are ever so sound for the guidance of this operation, they are not without exceptions, and much must be left to the discretion of the operator; nothing but a little practice will overcome, and enable him to suit the rule to the circumstance.

There are many other subjects connected with fruit cultivation which will be treated upon in the course of our proceedings, and I hope, by the aid of a few illustrations, to be found sufficiently intelligible.

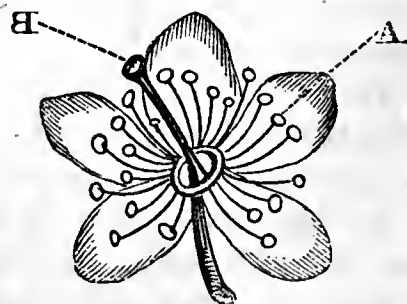
In the first place, and in immediate connection with fruit culture, is its propagation, which every fruit grower, however small, should be made acquainted with, and it is necessary that every cultivator should possess a knowledge of how, and by what means the different kinds are increased, so that he may extend any favourite variety.

All fruits which are grown in a British garden are increased in five different ways, viz.: from seed, by grafting, budding, cuttings, or layers. The object, as I have said, in raising from *seed* is to procure stocks for grafting, &c., and to obtain improved varieties. It is in this way that our gardens are filled with esteemed kinds. If we cast a look back to the sixteenth century, in the writings of Parkinson, Evelyn, and Ray, the Apple, at that time, numbered about eighty varieties, the Pear about sixty; and but few varieties of other fruit were then in existence. If we compare our fruit list of the present day, amounting

to thousands of varieties, it will show what has been accomplished by a steady perseverance in this and other countries, by raising fruit from seed. We owe much to the late Mr. Knight, who devoted a great portion of his life to the improvement of our hardy fruit, and to him we are indebted for some of our best kinds, as well as the introduction of many good sorts from the continent. Mr. Williams, of Pitmaston, also spent much time in the same pursuit, and succeeded in producing several good sorts. Our new continental varieties of Pears are mostly seedlings of Dr. Van Mons, of Brussels, who had in his establishment there about 800 approved seedlings to select from. The foregoing merely goes to show what has been accomplished by the zealous labours of a few enterprising men; and when we reflect upon the gratification, utility, and profit a whole nation enjoys, derived from the labour of a few, it will, doubtless, stimulate all who are interested in the pleasing occupation of fruit culture "to go and do likewise."

The surest and best way leading to the desired object of generating new and improved fruit, is the system which the late Mr. Knight so successfully practised: viz., *cross-breeding* or artificial impregnation, a process both easy and simple, that may be performed by any amateur without difficulty. I must here mention that the Apple, Pear, Plum, Cherry, and Strawberry, are the most eligible for a beginner to operate upon, owing to the facility with which the *stamens* or male portion of the blossom may be removed. It must also be understood that in performing the operation of artificial impregnation, it would be useless to attempt uniting the Peach with the Plum, or the Apple with the Pear; although each belong to the same natural family, no good result could be expected from such a union. Therefore, it becomes a fixed rule that the two varieties operated upon should be of close affinity to each other. Blossoms of fruit trees contain the male and female in the same flower, the *stamens* being the male part, and the *pistil* the female. The use of the stamens is to fertilise the young seed at the base of the pistil, and the seed is the offspring; therefore, if we fertilise the pistil of one variety with the *pollen* taken from the stamen of another, we may expect a new variety of intermediate character of both parents. Then it follows that cross-breeding is nothing more than removing from one blossom all the stamens or male portion, leaving the pistil or female, and bringing those of another variety as a substitute for what has previously been removed from the blossom.

Figure 1 represents the blossom of the Plum, as a type of the stone-fruit class. A is the *stamens*, which are the male portion, B the *pistil*, the female, connected with the embryo fruit at its base in the centre of the flower; cross-breeding is, therefore, performed by removing, with a small pointed pair of scissors, all the stamens, immediately



the blossoms begin to expand, and then collect the dust or pollen with a camel's hair pencil, from blossoms of any other variety that may be chosen for the male parent. After this operation, it is as well to inclose the blossoms in a gauze bag, to prevent bees from touching the flowers.

Most all seedling fruit have a great tendency to return to their primitive character, and when seeds are gathered indiscriminately and sown, it is only a chance when a seedling surpasses its parent, hence the necessity of *cross-breeding*, together with a knowledge of choosing the proper kinds for parents, which will increase the probability of success.

If the object be raising new Pears, select those for parents that you would wish to improve, either in size or flavour: for instance, to improve the size of the Seckle, or any other small Pear of good quality, make it the female parent, crossed with the pollen of some large kind, of well-known excellence, such as the Marie Louise, Beurré Diel, or any other hardy and free bearing sort. Always save the seed from a kind esteemed for hardiness and excellence. This will apply to all kinds of fruit, according as the operator may desire either to improve size or flavour, or to procure early or late varieties.

The seeds of stone fruit should be sown as soon as the fruit is ripe, and other kinds in February. Choose a light dry soil, in a warm situation. The young plants should remain two years in the seed bed. At the end of that time, most of them will begin to show their character, and in selecting them for planting out for trial, if Apples, Pears, or Plums, reject those that are *thorny*, with narrow leaves, and retain those with broad or smooth foliage, and prominent buds. Shorten the *tap* roots, and plant them thickly in a quarter by themselves, until they produce fruit, which generally takes from six to ten years from the seed; the approved sorts can then be removed, and the remainder grafted with other kinds.

(To be continued.)

HAREWOOD HOUSE,
THE SEAT OF THE RIGHT HONOURABLE THE EARL OF
HAREWOOD,

Is situated about nine miles north from Leeds, and eight south from Harrogate. The principal entrance is from the Leeds and Ripon turnpike road, through an inhabited arched gateway. A magnificent park of about 1800 acres opened before us, as we proceeded along a very pleasant carriage drive embowered by some beautiful and very picturesque Oak trees, which, from their aged appearance, seemed to denote that they are remnants of that primeval age when the hand of Nature was the principal planter and arboricultural designer in this our isle. Reflecting upon the changes the horticultural world had undergone since these antique inhabitants of the forest first felt the influence of the summer's sun, we were started from our reverie by finding ourselves, without the slightest indication of our near approach, at the front door of one of the most chaste Grecian buildings it has yet been our lot to witness. We understood that it was an old house renovated and remodelled from designs by Sir Charles Barry; most excellent judgment appears to have been displayed in selecting the site for this

mansion, where every object that could possibly offend the eye was totally hidden from view; all buildings and necessary addenda to a country demesne being as exclusively hidden from every part of the mansion as the mansion itself is from the approach.

In publishing the notice of any place, we trust that our readers do not feel that we do it for the purpose of lauding up either this place or that—our sole object is the hope of imparting useful information; therefore anything we see worthy of imitation we feel that we are making ourselves useful in thus bringing it into notice, but at the same time, in thus criticising a place, its defects or errors ought to be as faithfully portrayed that others may avoid them, especially as the gardens of the great are too often taken as models worthy of imitation; indeed, it was something after this character that the terrace gardens at Harewood had been represented to us as something worthy our notice, or, in fact, as a *chef d'oeuvre* of their style, consequently our anticipations had pictured to us a treat of no every day occurrence; but, alas, like many a bright dream or fairy vision, were our imaginations doomed to give way before the substantial reality. This terrace garden we found situated on the south front of the mansion; it is about 450 feet long and 130 feet wide. The beds are formed upon gravel; the edgings are dressed stone, between which and the plants we observed margins of common Yew, planted very thickly, and being clipped to the required height and breadth answered this purpose most admirably. This we also found was efficiently used for filling some of the smaller beds, corners, &c. We also noticed the common "Ling" and Evergreen Oak used for this purpose. As regards the management of the beds there was nothing left to be desired; they were good in the extreme; the colours were well blended and softened down, leaving nothing harsh to strike the eye. Each and every bed was well filled; great care and ability were displayed in regulating all superabundant growths, and also in regulating the height of each bed, &c. But we must confess to a most egregious error in the design; the beds and scrolls were much too small, consequently the grand effect we had anticipated was quite lost. Had they been proportioned to the noble mansion, and to the size of the terrace, our pen would have had the pleasing task of describing one of the grandest displays of floral effect the eye ever feasted upon. There is a herbaceous border, ten feet wide, between the house and the terrace; here we noticed some very good plants of Veronicas, Fuchsias, Deutzias, with several other tender flowering shrubs, which are taken up and potted for winter storing. This border forms an excellent background and relief to the terrace. On the south side there is a neat wall of masonry. The two ends are supported by sloping banks; these banks are covered by the common Laurel, which is most excellently handled; these are pruned and cut close in, till they are as smooth and even as a bank of turf. Looking from the terrace upon the park the eye is greeted with a most beautiful landscape, embracing a fine sheet of water, beyond which the ground gradually rises, and beautiful groves crown the distant outline, the foliage being tinted with the various hues of autumn, which, together with the setting sun, tended to give to the whole scene a very impres-

sive general effect. Leaving the terrace, we passed through extensive pleasure grounds, which were originally designed by Browne, but were ultimately revised by Repton. We observed some very fine Oak and Beech trees here, but we were sorry to find an almost total absence of those charming and, according to the present day's taste, indispensable gems to our pleasure-ground scenery—Conifers. The only plant we saw worthy of note was a beautiful plant of *Cryptomeria japonica*.

The kitchen gardens are situated at a very considerable distance from the mansion, being on the opposite side of the water. These gardens are surrounded by excellent walls, upon which we observed some very fine trees; two mulberry trees were very conspicuous objects upon those walls, from their immense size and neat appearance, this place being too far north to ripen the Mulberry in perfection in the open air. A wall is also built across the centre of this garden from east to west, dividing the garden into two, as it were. Upon the south side of this wall all the Peach and Nectarine trees died off branch by branch, evidently from their being planted too deep; this wall was replanted with fine young trees a year or two since; these are doing well. Here are some very good plant houses and Pine-pits; the Pines were looking well; into these Pine-pits Black Hamburgh Vines are introduced and trained along the back over the pathways; by this plan space is economised, and the Vines do remarkably well, without interfering with or shading the Pines. The plant-houses were gay with Allamandas, Clerodendrons, Gloxinias, Begonias, &c. At the back of these are some good Vineries, with good crops of excellent fruit. Here is also a celebrated Muscat house; this is seventy-five feet long and thirty-two feet wide. This house contains but one Vine, which was planted in the year 1783 outside the house, and is brought into the centre; a branch is trained each way beneath the front plate of the house, from which a single rod is taken up each rafter, and at the time of our visit had a magnificent crop of very superb fruit upon it; but we were informed that the fruit upon this Vine had been suffering from a very peculiar disease for these last few years; there were two or three diseased berries pointed out to us, and we must say that this disease is totally distinct from anything we ever before met with. It first makes its appearance by a small brown circular spot upon the berry, and rapidly enlarges; the surface becomes rough and warty in appearance; the flesh gets quite hard and core-like, and ultimately rots; this disease ultimately spreads from berry to berry and from bunch to bunch, but it seems not to make its appearance till after the fruit arrives at maturity. Mr. Laurell (the worthy head gardener) considers this pest to be a fungus of some species, and which he has almost eradicated by a liberal use of sulphur. He has both painted the rods with it after pruning and dusted with it in the growing state. These houses were made gay with flowering plants and Ferns, amongst which we observed some very neat specimens. We also noticed a *Nepenthes distillatoria* growing freely in one of the Vineries, and which was very attractive, from the number of pitchers upon it. Inside, at the front of one of the early Vineries, were some Figs in pots; these were allowed to root through the bottom of the pots, and they annually receive a rich

dressing of manure ; and we were told the quantity and quality of the fruit they produce was beyond conception. This place being within easy distance of both Harrogate and Leeds, many of the inhabitants and visitors from each place avail themselves of his lordship's liberality in throwing open both his house and grounds every Thursday during the summer for their inspection, and for which they must feel deeply grateful.

The courteous replies to all our inquiries, as well as the very hospitable reception we met with at the hands of Mr. Laurell will cause us always to look back with emotions of pleasure to our visit to Harewood.

A.

A FEW REMARKS ON FRUIT TREE PLANTING.

THE planting of fruit trees is an operation simple enough in itself, but it is at the same time an all-important one as regards the ultimate results to be obtained. The generality of practical gardeners now-a-days perform the work in accordance with sound principles, and the results are usually most satisfactory. There are, however, some persons, but more especially novices in the art, who plant trees not on the most correct principles, but rather something in the manner they would a post. The following remarks, which are the result of many years' experience, are offered for their advantage. One of the first things to be considered is, that a tree is a living nicely organised production, as certainly affected by good or bad treatment as an animal. Before planting any trees, the state and condition of the soil must be ascertained. If it is capable of being improved by manure, &c., it should be done ; and if it is positively bad it should be removed and be replaced by good. If the subsoil is of a strong, heavy, retentive nature, it should be drained ; if of a gravelly or porous nature, drainage is not always necessary. The ground being properly prepared, the next matter for consideration is the best time for planting. I prefer the autumn, but rather than lose a season I would plant any time in open mild weather during the winter and spring up to the end of April. It requires two persons to plant a tree properly. The holes for receiving the trees should be made sufficiently large to receive the roots entire without either bending or crowding them. Trees should never be planted more than an inch deeper than they were in the nursery ; deep planting is often fatal, and always injurious. Before planting, pare off with a sharp knife all the broken roots ; then hold the tree upright in the hole prepared to receive it, and spread out the roots in their natural position ; the soil should then be carefully introduced around and between all the roots and fibres ; when these are well covered with soil press it gently, but firmly, down with your foot (in recommending this I of course presume the soil is not *wet*) ; then fill the hole completely up. If there is any secret in planting, *it lies in carefully filling in the mould, so that every root, and even the smallest fibres, may meet the soil.* Deaths by transplanting often arise from the hollows left among the roots by a rapid and careless mode of shovelling the earth among the roots. Trees planted in the autumn

should not be watered,—the autumnal rains will be all-sufficient. But with trees planted late in spring the case is widely different. In this case, when the roots are covered with soil, a good watering will settle the earth about the roots, and fill up any vacuities that may remain. When the water has sunk away, then fill up the hole, pressing the earth moderately around the trees with the foot. The moist earth being covered by the loose surface soil, will retain its humidity for a long time; indeed, it is rarely that it is necessary to water again after planting in this way, and a little muck or litter placed around the trees upon the newly moved soil will render it quite unnecessary. Frequent surface watering is highly injurious, as it causes the top of the soil to bake so hard as to prevent the access of air and light, both of which, in a certain degree, are absolutely necessary. The soil, as far as the roots extend, should be kept clear of vegetables, neither should weeds or Grass be allowed to grow around the trees, and the surface should be occasionally hoed deeply. Trees will by this means advance more rapidly in five years than they will in ten, when the ground around them is either cropped with vegetables or Grass is allowed to grow on it.

Newly planted trees require care and attention, and it should always be borne in mind that they can be drowned, starved, surfeited, bruised, and in numberless other ways, brought to an “untimely end,” or, what is worse, rendered “cumberers of the ground.”

M. S.

LUCULIA GRATISSIMA.

ONE day last autumn, whilst visiting the gardens of our worthy city member, Sir John Duckworth, Bart, I was so much delighted with a splendidly grown specimen of my old favourite, *Luculia gratissima*, that I entreated the young and very intelligent gardener there (Mr. Euston) to sketch the plant and write a description of his mode of treatment; for it was, I assure you, done in such a style as would have gladdened the hearts of any of those celebrated cultivators who bring to the various metropolitan exhibitions such glorious specimens as are not frequently to be seen elsewhere; and those who know how rarely this truly fine old plant is met with grown in this manner will, I am sure, agree with me that Mr. Euston has done his work well, and it affords me considerable pleasure to bear testimony to the faithfulness of the sketch and description which he has given me to send you.

He possesses three excellent qualities not every day found combined in the same person. He can grow a good plant in good style; he can clearly describe, for the information of others, how he did this, and he can give a faithful and spiritedly artistic sketch of his performance—need I say more?

R. T. PINCE.

Exeter Nursery, Exeter.

The following is the description and sketch above alluded to:—

THE public taste has, in recent times, so much inclined to novelties, more especially in plants, that those of earlier introduction, notwithstanding the high excellence of many of them, and the varied beauties

they put forth to claim our admiration, are too often put aside, neglected, and finally disappear, and that too from places in which their presence



might reasonably be expected if the eye of taste was the one object to gratify. Some are doubtless rejected from the supposed difficulties attending their cultivation, while, in more instances, they seem to give place to those that lure by their colour, whose bright hues attract by, and obtain admirers from, their brilliancy, while others find favour from

the peculiar markings or pencillings which they exhibit, in flower or foliage, and others again for their diminutive growth and formality; but the *Luculia* belongs to none of these, though it possesses charms which must ever arrest attention.

The *Luculia*, under good cultivation, soon develops itself into the most magnificent proportions, making it an object of beauty and interest in the conservatories of the wealthy. Its growth too may be moderated with almost equal interest, so as to adapt itself to the diminished space which persons of lesser means may have at their command. Clothed in rich and ample foliage of large size, and of the deepest glossy green colour, with the point of each shoot surmounted with a large flattened panicle of pale rose coloured flowers, exhaling a delicate though delicious fragrance, and flowering as it does through the dullest months of winter, from November to March, it must be acknowledged an object which few can behold but with pleasure.

It seems matter for surprise, therefore, if not for regret, that this noble plant is not more frequently met with, seeing that its successful cultivation is comparatively simple and easy (as I will endeavour to show), and that few will reward the cultivator better for the care and attention he may bestow upon it. The plant is reputed difficult of cultivation, and where met with it frequently presents a leggy, naked appearance, the very opposite of what it should be, and of what it will readily become under careful management.

To persons about to commence its cultivation, it is better, for various reasons, to obtain a young healthy plant from the nurseryman, for under any circumstances its propagation will be found tedious and slow. Cuttings are a long time forming roots, especially if proper care is not exercised in the selection of wood for that purpose. The best perhaps are those shoots which are freely put forth when the bloom is declining from the eyes nearest the base of the flower head. When they have become a little firm, they should be taken off with a heel: that is, with a portion of the previous year's wood attached to the base of the cutting, and this at once inserted in a well drained pot, filled up with sandy peat soil, and surfaced with silver sand. After receiving a watering sufficient to thoroughly moisten the whole mass, the pots containing them should be plunged half their depth in a brisk bottom heat, and when the callus is formed they should be plunged to the rim of the pots, and no more water, after the first watering, should be given them, unless it is found really necessary to preserve the cuttings from flagging. A situation in a close frame placed on the tan bed, in the propagating house, or covered with a large hand-glass, will be found preferable to covering them with the bell-glasses in ordinary use, as the small amount of air contained under the latter, while it may perhaps preserve the cuttings, to all appearance, fresher for the time, yet seems to encourage decay rather than the emission of roots; and thus while the ardent, though maybe inexperienced cultivator, gazing on their freshness and promise, counts on his success, he becomes dismayed to find that the leaves drop off at the slightest touch, and rottenness rather than roots attends his more cherished expectations. To preserve the cuttings from flagging is important, but with such treatment as I recommend, this will scarcely

be found to occur, if the atmosphere is kept sufficiently humid under the frame or hand-glass, and the cuttings at all times shielded from the direct rays of the sun. If all goes well, cuttings put in in February, or early in March, will be found to be nicely rooted in May, when they should at once be put separately into small pots, and restored to the place they previously occupied, where they should remain until they have formed fresh roots, and then be gradually hardened to endure sun and air. In the early part of July, they will be found to require a shift into a size larger pot, and the strongest plants will produce beautiful heads of bloom the same winter, and these plants, in the second season, with a little care and attention to stopping the leading growths, and being shifted into larger pots about two successive times, will make nice compact specimens, producing each from twelve to twenty heads of bloom, and in this state they will form admirable subjects for decoration.

But where really fine specimens are desired, a young, healthy, vigorous plant should be selected, the preference being given to one that has not yet flowered: say a plant from four to six inches high. Early in February this should be placed in gentle heat, affording it a little bottom heat at the same time, to excite the roots simultaneously with the top. When both have commenced growth, the plant should be transferred to a larger pot, and be afterwards plunged to the rim in a bottom heat of about 80° Fahr., and the atmospheric temperature increased also with proportionate moisture. A situation in a Cucumber frame or pit will answer admirably, as the requirements of the latter in this respect will be exactly suited to the *Luculia* at this stage of its growth. To keep it in every stage as close to the glass as possible is important, with a view to secure a short-jointed sturdy growth, without which success is uncertain. When they have attained a height of twelve or fourteen inches, the terminal bud should be pinched out, and lateral shoots will soon after be formed, the central ones of which must be frequently stopped as they advance, as this will give additional strength to the lower branches, and enable them to develop themselves in full perfection, and produce as large heads of bloom as the upper branches, and ensure shape to the specimen.

The *Luculia* seldom pushes shoots from more than the uppermost eyes; therefore, the pinching must not be long delayed; moreover, the energies of the plant seem almost entirely directed to the upper shoots, and if stopping is not attended to, the lower branches become weak and puny, and ultimately die away, when all hope of forming a specimen is at an end. Timely attention to stopping in this wise, therefore, must be regarded as of the first importance; the lower branches will seldom be found to require it.

The plant should receive its final shift for the first season about midsummer, and afterwards be returned again to a place where it can be afforded bottom-heat, as before, and kept there for a month or so, and then be gradually hardened, and finally removed to the greenhouse, where it can be kept cool, and in an airy situation; care, however, must be taken that it should not be exposed to drying currents of air, and partial shade from the noonday sun should be given. Stopping,

after this period, should not be repeated, or the growth might not be strong enough to produce fine heads of bloom.

In a succeeding season, after the bloom has died away, about March, the plant should be again introduced to a gentle heat; young wood suited for cuttings will soon be formed in abundance, and after a sufficient supply of these has been obtained, the plant should be allowed to become somewhat dry, and then the upper shoots should be cut back close, leaving only a pair of eyes above where the plant received its first stopping. The lower branches should be left entire (unless a straggling shoot should present itself, which might then be shortened back a little), but attention must ever be directed to these, as they will be found the most difficult to preserve in robustness and vigour.

After the plant has put forth shoots from three to four inches in length, it should receive a shift into a larger pot, and be again afforded bottom-heat; a less amount of atmospheric heat will, however, in this season be needed: from 60° to 65° is enough, with an increase of 10° by day. The one shifting, too, will suffice for this season, and in all other respects the same treatment should follow as previously recommended, and in succeeding years alike. The soil most suitable for this plant is two-thirds light rich turfy loam, with one-third fibrous peat, used in as rough a state as possible, with sufficient sand to keep the soil open and porous. Charcoal broken to the size of Beans and freely mixed with the soil will be found very advantageous, as also a little crushed bones, the quantity of which should be increased as the plant advances in size; ample drainage should at all times be secured.

The plant is subject to thrips and red spider, but the first-named may be prevented by fumigation or sponging the leaves at intervals; the latter by occasionally syringing the under surface of the leaves.

In conclusion, I would add that the chief point to observe to ensure success is to allow the plant at no time to receive a check in its young state. It should receive successive shiftings into larger pots as often as it is found to require it, and never be allowed to become pot-bound; and in its more active growing state, bottom-heat, with a high and moist atmospheric temperature, must be given, air being admitted at all favourable opportunities, and a situation chosen as near the glass as possible. The plant, moreover, should never be allowed to suffer for want of water, or the loss of the lower leaves will be the result, and the consequent disfigurement of the plant. After the flower-head is formed, weak manure water will be beneficial, and tend to preserve the foliage in health. Attention to these points, I feel assured, cannot fail to be gratifying in its result, and to bring its own reward.

The accompanying drawing represents a plant under my care, in the third year of its growth. Its height is nearly six feet, and breadth nearly five feet; it produced in the first season twenty-three heads of bloom, several of which were from eight to nine inches in diameter; the second season thirty-four heads of bloom, and now it gives promise, together with the lateral blooming points, of 112 heads of bloom. The drawing, I might add, was made in the early part of this month, when the blooming points were well up, but a month before the blooms might be expected to open.

Wear House, Exeter.

JAMES EUSTON.

ORCHARD HOUSES.

THE very interesting account of the orchard-house at Stansted Park offers such an agreeable contrast to the croaking "Few Words about Orchard-houses," in your November number, by "Pomona"—a masculine Pomona, however, who has, I believe, neither orchard-houses nor trees in pots—that one is tempted to offer a "few more words" about the assertions by "Pomona." He says, "To attempt to grow Grapes in span-roofed houses not heated will end in disappointment." I grow a large quantity for my own family in three houses not heated; the Grapes never fail to ripen, and are always, from the free ventilation, first-rate in quality. At Stansted Park "fine and well-ripened Black Hamburgh Grapes" have been grown in this way, "a proof that it is not necessary to heat orchard-houses to get ripe Grapes." This seems decisive enough, and "Pomona" ceases to be any authority in orchard-house culture; still allow me to notice one or two other remarks by the same person. My glass roofs resting on posts (see former volume), and filled in with Arbor-vitæ hedges, are very recent erections, built for a special purpose, *i.e.*, to grow young fruit-trees in, and to retard mid-season Peaches—which they do most effectually; my houses with shutters, "more recently erected," according to "Pomona," were among the first orchard-houses I built.

I do not "give liberal doses of liquid manure," finding it quite unnecessary; the annual dressing I give the trees with tenacious loam and dung, and a surface dressing of the latter, give all the vigour that can be wished for. By the way, I have reason to believe that the loam often used for potted fruit trees is too light and sandy, which will often bring on the curl and aphid in spring; if so, in potting it should be well rammed down with a wooden pestle, not only when the trees are potted, but also in the spring when part of the old compost is taken out and the annual dressing is given. The recommendation given at p. 18 to plant the trees out in the borders of large houses, is sound and good, but Peaches and Nectarines planted out require good management; if the soil be light and rich, they are, even with the most skilful root pruning, apt to grow too vigorously and irregularly. A stiff, tenacious loam, with a small quantity of manure, is the best compost for the border, when the trees are planted out; and biennial, or even annual removal, better than root-pruning done imperfectly, for one small root left unpruned will give astonishing vigour. The Dutch gardeners force their Peach trees that are annually removed, and procure fine fruit, and there is no doubt but Peach and Nectarine trees, planted out in a large orchard-house, may be kept in fine order by annual removal in November; the border they are planted in may then be made more light and rich with manure than if it is intended to allow the trees to grow without removal. It is now about twelve years since I planted my first orchard-house trees in a house twelve feet wide—(*en passant*, I planted the trees a year before I built the house)—a path along the centre, and a row of trees (Peaches and Nectarines) on each side; the effect was beautiful—they grew well and bore quantities of fine fruit.

The soil was, however, too light and sandy, and, in spite of my having them annually root-pruned, they grew too vigorously, making strong shoots from the centre of the trees and soon reaching the glass; the lower shoots of the trees were shaded and weakened, and they soon lost their symmetry. I then had trees potted, which have ever since given me much satisfaction. I can now see that my trees planted out might have been kept in order by removal, but although I was then practising it on Pear-trees, it did not occur to me.

In the central border of a large house like that at Stansted Park, it seems to me that nice half-standards with straight three-foot stems would be most eligible. Their heads should be made to spread horizontally, by carefully pushing out their central shoots and pruning so as to offer a large surface to the sun; for the Peach without a "sunny side"—*i. e.*, a rosy cheek—is too often flat and insipid.

I observe that your correspondent procures fine fruit from trees in pots, but not so large as from those planted out. This must be owing to his not allowing the trees to root through into the border, which I hold is indispensable to obtain full-sized fruit; the quality of the fruit is also said by him to be inferior from trees in pots. This, I know from experience, in most cases, is owing to the situation of the trees. I have for some years past eaten the most high-flavoured and delicious Peaches from trees in pots, and, on the contrary, some of the most insipid and worthless; the former from trees fully exposed to the sun and air—the latter from trees standing in the shade, too far from the glass and the ventilators. It is scarcely credible to what an extent the same kind of Peach is influenced by the position of the tree; but I feel I ought to state there are variations in the flavour of Peaches and Nectarines, in different seasons, scarcely to be accounted for. In 1855 my Nectarines were nearly all below par, as regards flavour, and the Peaches all remarkably good; in 1856 the Nectarines were all excellent, but several kinds of Peaches, generally first-rate in quality, were inferior in flavour; I may add, the trees all stood in the same house, in the same positions, and had exactly the same culture. Again, Peaches of the same kind—such as the Grosse Mignonne, Royal George, and others—often differ in goodness in different seasons. I should, without hesitation, have attributed these changes to the greater or less extent of sunny weather, did not the alternate variations of flavour in Peaches and Nectarines make me doubt if it was the real cause.

The success that has attended the culture of Plums, Figs, Cherries, Pears, and Apples, in pots, at Stansted Park, is very gratifying, and at once puts to flight the little cavillings of "Pomona;" more ripe Figs have been eaten in England these last five years than were ever seen or thought of before.

I am quite sure that "G. T." needs no hint; but he will not feel offended when I tell him that the Stanwick is by far the most delicious of all Nectarines; its flavour, however, is never fully developed in a cold orchard-house. I have two fine trees in pots, standing in one of my Rose-houses, in which gentle forcing is commenced towards the end of January; they ripen their fruit towards the end of July, seldom crack, and are always perfectly delicious. I sometimes think that were

I a man of leisure, and with my present love for good fruit, I should devote a small house, heated, entirely to the culture of this unequalled Nectarine, either planting the trees in the borders or growing them in pots. In mentioning the planting of trees in the borders of orchard-houses, I am reminded of some Peach-Apricots which I have in the borders of one of my houses. These are lifted every second year; their healthy, fruitful state is quite remarkable; they are growing in a very stiff yellowish loam, with a small quantity of manure as a top dressing. I may perhaps be pardoned for mentioning my favourite cheap description of orchard-house for planting out trees; it is the span-roofed, 12 to 14 feet wide, and 8 to 9 feet in height; the trees may be planted in the borders on each side, and form a delightful and fruitful avenue. Pears, Plums, Cherries and Apples should be grown as pyramids; Peaches, Nectarines, and Apricots as dwarf standards, or (to use a more explicit term) bushes. A portion of the house should be devoted to the latter; as they require more heat when ripening, it would perhaps be better to have the different kinds of fruit in groups; thus in a house, say 140 feet long and 14 feet wide, for seven kinds of fruit—viz., Apples, Apricots, Plums, Peaches, Nectarines, Cherries, and Pears—twenty feet of each border may be allotted to each kind. You will thus, we will say, enter your house through an avenue of Apples—then Pears—then Plums—then Cherries, Apricots, Peaches, and Nectarines following. You will thus pass through a real miniature orchard under glass. These houses may be built with Oak posts, and either boards or glass at the sides, according to taste and economy. They are the cheapest of all houses, the most easily ventilated, and if made to face endwise N.E. and S.W., so that the sun shines down the centre the best portion of the day, no injurious shading will take place.

I fear I have been tedious; but there are so many modes of adapting houses to fruit-tree culture—all more or less eligible—and some new ideas that have occurred to me since I wrote the fourth edition of the *Orchard House*, that your readers will, I trust, pardon the length of this article. I have not changed my ideas with regard to the eligibility of fruit-tree culture in pots—it is so agreeable to be able to remove a Peach-tree loaded with fruit to the open air to give them more flavour and colour, or to the hall or dining-room, or to be able to retard a tree or two for some special occasion. It is, indeed, a delightful mode; and although it may not satisfy those who with true vulgarity wish everything “to pay,” it will give real satisfaction to the lover of the good and beautiful.

THOS. RIVERS.

A FEW QUESTIONS TO YOUNG GARDENERS.

A NOTE in the *Gardener's Chronicle* informs me that a Superintendent for undertaking the management of the Horticultural Society's Garden at Chiswick is yet wanted, adding “none of the candidates having been found to possess all the qualifications which the Council are desirous of securing.” This sentence appears to me so full of import and signifi-

cance to young gardeners, that I have entered into a short inquiry to see what we may assume the Council require in their candidate, for the purpose of bringing the case before them—I hope, too, for their improvement; for is it possible that out of the great number of men brought up as gardeners, and to whom an appointment of this kind would give a very handsome salary, and a first-rate position for life, not ONE can be found whose qualifications are up to the required standard? My young friends, what would the late Mr. Loudon have said to you, had he been alive at this moment? It would have grieved and shamed him, after all the advice he gave on education and improvement, to find his warnings had been unheeded; and when an opportunity for distinguishment turned up, none was found capable of embracing it. What, too, has become of the writings of Dr. Lindley, who for the last twenty years has been toiling to bring the most abstruse points of gardening philosophy down to the level of the meanest capacity? Are his lectures and inimitable writings, so clear and comprehensive, to return to him void? It would really seem so, from the case before us. Now let us inquire what is required from this candidate beyond what an ordinary education and his own professional studies ought to give him, and then I will leave you to pronounce your own verdict.

First, then, I presume he must write a good hand, be a tolerable accountant, able to measure solids and superficies, all common items of an ordinary education, surely. Next he must (I also presume), have a practical knowledge of plants, fruits, and cultivation, which of course every gardener has, or says he has, at his fingers' ends. Well, then, next, let us say, he must be of methodical and business habits, able to arrange his work before-hand, and to apportion the right number of hands to it; to possess forethought and judgment, so as to see the work to be done is done at the proper time, and in a proper manner, and to economise time and labour. Now in regard to these points, I submit to any young gardener whether he is capable of undertaking the charge of a body of workmen on a gentleman's estate unless he has made this his study—certainly not. Next, we may suppose the party must have a good address; be firm, but conciliating, with sufficient control over himself, not to offend where he cannot agree. Well, all men certainly have not this virtue, but much of it may be acquired, and as it is important for a man's advancement in life to possess it, it should be studied and mastered. Gentlemanly manners are never lost on any individual, and are absolutely necessary to all who are anxious to obtain the estimation of their superiors. Next, he must, I conclude, know something of the physical sciences bearing on his own profession, especially Vegetable Physiology, Chemistry, Light, Geology, and Meteorology. Now here I submit that a tolerable knowledge of these sciences is within the grasp of any individual who possesses an ordinary English education. So many elementary works on these subjects are now published, and the principles of each are brought so clearly before the understanding, that an ordinary mind may master the general principles of each, and with a moderate amount of perseverance become tolerably well up in them. I believe I have mentioned most of what we may (as I before stated) assume to be required. It is not (I understand) indispensable that he

know Botany—but this he should know—nor yet foreign languages ; French and German, however, would be great acquisitions. On reviewing, therefore, the qualifications wanted and the prospects held out, I can only come to the conclusion that gardening as a profession appears to me to be retrograding rather than advancing with the times.

Leaving the above facts in the hands of young gardeners, I would wish to impress on them the absolute necessity of self-improvement and the study of those branches of learning which, when once acquired, give their fortunate possessor an immense advantage over the mere practical man, and will enable him to secure every favourable opportunity for his advancement which comes in his way.

PHILO.

SHORT HINTS ON PREPARING SOIL FOR GARDEN CROPS AND CULTIVATION.

THE ground for spring cropping, if not already in a state of preparation, should at once be taken in hand—that is, when the weather is dry ; for, make it a rule never to touch land when in a wet state, or covered with snow.

Asparagus, *Seakale*, and *Rhubarb*, all require a deep rich sandy loam ; the two former will grow well on soils either sandy or peaty, but prefer the former. Neither will thrive on a stiff clay. Trench two or three feet deep, and well mix throughout the soil good rotten dung and a little salt. Where dung is scarce, sea-weed (this is capital for the two former), leaves, and the sweeping of lawns, perfectly rotten, as well as the sweepings of streets, are good substitutes ; all (except the sea-weed) to be mixed with salt after the rate of 6 or 8 lbs. to each pole of ground, or 3 lbs. of guano and 1 lb. of phosphate of lime may be mixed with road scrapings or ashes, and applied when the above manures are not obtainable. Of the two, *Asparagus* should have the richer soil. Before planting, if there is time, turn back the entire mass, which will mix the manures and soil better together. Plant in March or April.

Salt is not indispensable for *Rhubarb*, which may be planted at once, 3 feet by 4, or 4 feet each way, for producing extra fine stalks.

Peas.—Early *Peas* delight in rich warm open soils, and where a good dressing of manure has been given to the crop preceding, but little need be given for this. Trench or dig the ground deeply, and let the situation be exposed to the sun but sheltered from rough winds.

Peas for *summer* require a heavier soil, very deeply dug and well mixed with rotten dung—cow or pig-manures are best. The roots of *Peas* will penetrate the soil down to 2 feet, if open. The summer crops are best sown in shallow trenches, which should be left partially open, to allow for watering in dry weather. The secret in obtaining good *Peas* in August and September lies in a deep, open soil, through which the roots can penetrate, and an abundance of water. On dry or shallow soils, *Peas* at the above period soon become attacked with mildew, and unproductive.

Late Peas should have a very open exposure, to prevent damp and mildew.

Scarlet Runner Beans.—The ground may be prepared in a manner similar to that recommended for summer Peas, but a much lighter soil will grow them. To keep them productive, however, through the season, copious waterings in dry weather will be required, and the young kids should be gathered as they are produced, as, when permitted to become old and form seeds, they prevent the growth of the young kids, and the plants give up bearing more. Scarlet Runners bear well when left to lie on the ground without sticking them, and merely stopping them occasionally. Another useful vegetable, both for the summer and winter, is the *White Dutch Runner*; grow them similar to the Scarlet Runner. The kids in a green state are like the above, and nearly as good. A part of the crop may be left to ripen, which will produce the best kind of French Haricot, a most useful and nutritive vegetable for the winter season.

Dwarf French Beans like a warm dryish soil, moderately enriched. To keep these in bearing, treat them as advised for Scarlet Runners, by not allowing any of the kids to become old.

Broad Beans.—Strong heavy soils suit them best, for summer crops select the heaviest soil you have; in this they will be more productive if not enriched too much.

Cauliflowers.—These cannot well have a soil too rich; a strong loamy soil, well worked and dressed with the best rotten manure, and the plants well watered in dry weather, will produce this excellent vegetable in the greatest perfection, liquid manure is capital; and never suffer the plants to want water, either pure or mixed.

Cabbages and Broccoli thrive equally well under similar treatment and soil. Broccoli being in season principally during winter and spring, watering is not so much required, but it greatly improves it during dry weather in April and May. The early crops of Cauliflowers and Cabbages should have the most sheltered situation you can give them. Observe, neither Cauliflowers, Cabbage, Broccoli, or Borecole should follow each other at a less interval than two years.

Lettuce.—Whatever land will grow first-rate Cauliflowers will also grow fine Lettuce. Cos Lettuce requires good loamy soil, deeply dug, and well manured. No greater mistake is committed than by attempting to grow this by the side of walks or any out of the way place. During the summer water as much as you please, provided the water passes freely away. Planted 12 or 15 inches apart, and under the above treatment, the produce will grow quick, and be both crisp and succulent.

Cabbage Lettuce will come to good perfection on rather lighter soils, still depth and richness are requisite, and watering in dry weather. Keep the plants a good distance apart (a foot at least). It is astonishing how fine they will grow when allowed room.

Spinach.—This crop for winter requires a deep and dry soil, well enriched; for the summer, as it only keeps in perfection a short time, it should be sown frequently; it does well enough between the rows of Peas, Beans, &c.

Parsley.—A very rich and deep soil; for fine roots the plants should

be 12 or 15 inches apart. For winter, let the beds be above the surface soil. Parsley, however, will grow moderately almost anywhere.

Carrots.—For this crop the soil must be very deeply dug and minutely broken up, if not of itself sandy. The crop preceding should have been highly manured, which will make a preparation for the Carrot. Should this not be the case, the dressing must be rotten manure, quite friable; or fresh horse litter, that the roots may meet with no obstruction, and grow clean and straight.

Parsnips, as above, only the soil must be heavier. Parsnips will thrive well on even clayey soils, if there is depth for them to penetrate.

Beet as for Carrots.

Onions.—Good old garden soils, with plenty of unexhausted manure, suits this crop; it prefers a rather strong soil, which should be deeply dug (as the roots penetrate to a considerable depth), and made tolerably firm. Where farm-yard manure has been used for some years dress the ground with guano or the blood manure 3 or 4 lbs. per pole. Light sandy soils produce the maggot, which often destroys the crop.

G. F.

HORTICULTURAL EXHIBITIONS.

I HAVE perused with considerable interest the article in the January number, "Do exhibitions encourage horticulture as they ought?" I admit that several of the remarks are very justly founded, and trust that growers of plants will pay a little more attention to their specimens intended for exhibition. As you mention the Newcastle-on-Tyne show in particular, and that not in a very creditable manner, I beg respectfully to correct several errors which, if not contradicted, will entirely mislead the public, and act prejudicially to this society, one of the oldest in the kingdom, established in 1824.

In the first place, you mention the "September" show, at Newcastle-on-Tyne: now, we had *no* show after the 30th and 31st of *July*. In the next place, you state that it is the practice here to give prizes for the best yellow, white, scarlet, and other coloured Dahlias. This is also an error. We offer prizes for the "best single specimen," irrespective of colour; and at our July show we did not offer any prizes for Dahlias, as you will observe from the schedule of prizes herewith.

You next bring Mr. Edwards of York forward as, "growing excellent Dahlias, not many miles distant." Now, York is over eighty miles south of this place, with a much better climate than we possess, and therefore will not bear a just comparison. If that is not the case, how is it that corn and other agricultural and garden produce is so much later in coming to maturity here than at York?

Your remarks about judges having the power to award or withhold prizes are quite correct; our Rule 10 provides for that.

We appoint our judges from a distance, and no competitor has an opportunity of tampering with them; for, in the first place, they do not

know who the judges are until after the awards are made, neither do the judges know the name of a single exhibitor until the prize ticket is affixed to the collection after their award. We use numbers and not mottoes. The exhibitor cannot tell what his number will be until his plants are staged—the numbers being placed to each collection just before the exhibitor leaves the tents, and which he receives from the secretary at the time, so that no competitor can tell his numbers to a judge; or, even if he could do so, that judge may be called upon to examine a different class of plants. Our numbers range from 1 to 500, and upwards, and no one but the secretary knows who the exhibitors are; this system we have found to work well and prevent dishonesty. Your exposition of mottoes is quite correct.

Our rules also require all articles to be named, but if one plant has no name attached to it in a collection, that collection is not disqualified by the omission, although that was strictly adhered to for some time, but it cannot always be carried out. For instance, one competitor, seeing that another was likely to take a prize, and knowing that a tally deficient would render the collection ineligible, might take one out unknown to his opponent, and thus disqualify him—this has been the case here. [If proved, expel such a person as a dishonest exhibitor.—ED.]

There is another society in this town under the name of the North of England Floral Society, established three or four years ago, but we have no connection with it. Perhaps it was one of their exhibitions that you inspected; if so, I shall feel obliged by your correcting it.

H. V. WILSON, *Secretary*.

29, *Sandhill*.

[In the article alluded to we mentioned the September show at Newcastle-on-Tyne, but it is evident there are two horticultural societies there, one of which held an exhibition in September, at which we were present, and believe we were correct in stating that "it is the practice here to give prizes for the best yellow, white, scarlet, and other coloured Dahlias." We do not object to the practice, but we protest against so much rubbish being set up for competition, and ask for an improvement in this respect. This can easily be done, if the growers will bring a little more thought into play in growing these blooms, and, after growing them, *carrying them safely to the exhibitions*. We said—"And yet Mr. George Edwards, of York, not many miles distant, showed fine blooms at Shipley, Halifax, &c.;" and on carefully reading the article again, our correspondent will find we did not refer to his going to Newcastle, but to Shipley and Halifax. Our opinions will remain unaltered on the subject of using mottoes and numbers instead of giving the names of the exhibitors. Frame rules sufficiently stringent to expel any exhibitor who may be dishonest, and get honest and intelligent judges, and then what need of secrecy? Such a system of secrecy would be scouted at the leading exhibitions in the south.]

REVIEWS.

Edwards' National Garden Almanack for 1857.

THIS the fifth annual issue of this most useful work is fully equal to any of its predecessors, and we are pleased to see the work is growing in public estimation; so much so that a reprint has already become necessary. Mr. Edwards has, therefore, made further corrections for the second issue, and has even availed himself of the new postal regulations, by affixing the initial letters to the London portion of the trade directory. This will be of advantage to country readers who are in communication with the London trade. The same editorial care is shown in other respects, and as a garden companion and trade directory it cannot be too highly estimated. The list of new plants is alone well worth the money charged for the Almanack, and there are also select lists of florist flowers, bedding and other plants.

To be without so useful a directory would be a loss to the trade, as we find it now in almost every nurseryman or seedsman's counting-house, and to the amateur it is now a looked-for pocket companion. It should, however, be borne in mind that so much matter cannot be given for the amount charged unless advertisers patronise liberally with advertisements, so as to remunerate for the expense of printing so much matter as the work contains. Mr. Edwards has, however, little reason to complain in this respect, as, independent of sixty pages of advertisements in the January issue, several pages are added to the reprint just out.

Seed List for 1857, of Messrs. E. G. Henderson & Son, Nurserymen, &c., &c., Wellington Road, London.

THE excellent seed catalogue of this firm contains, as usual, extensive lists of greenhouse, flower garden, kitchen garden, and agricultural seeds, besides other miscellaneous matter, prefaced by a coloured plate of the pretty new annual *Veronica syriaca*. In the work will be found timely hints on rearing flowers from seed; a select list of novelties in the flower-garden way, which should be looked over; as well as the list of new plants at the end; among which will be found some valuable acquisitions.

Wheeler & Son's (Nurserymen &c., Gloucester) List of Seeds and Plants, 1857.

MESSRS. WHEELER are acting wisely in reducing the number of vegetables, &c., of which they offer seeds to their customers, to those only which they consider worth growing. There is much needs reforming in this line, and we are glad to see some one setting the example. The selection of seeds in the list before us has been carefully made, and there are lists besides of most of the popular plants of the day.

Peter Lawson & Son's General Lists of Trees, Seeds, &c. Edinburgh and London.

THE catalogue of this eminent firm is got up under separate headings, and includes Forest Trees, Ornamental Trees and Shrubs, Conifers,

Roses, Fruit Trees, and general seed lists. All are beautiful specimens of arrangement and printing, and comprise very extensive collections of nursery stock. These lists should be in the hands of all interested in planting, as well as agriculturists.

CALENDAR FOR THE MONTH.

Auriculas.—Water now more freely if the weather continues mild. Top dress about the middle of the month, using good rich soil. Before this is done, however, see that the water has penetrated to the bottom of the pot, after their season of rest.

Azaleas.—Turn the specimen plants around occasionally, that all the buds may have the benefit of light and air. Any not trained or tied out should be done without loss of time. Those intended for late flowering should not have a higher temperature at night than 45°; but any early varieties, that it may be desirable to have soon in flower, should be kept in a warmer and moister atmosphere. Large plants require careful watering at this season; they should have air when the state of the weather permits. Prepare soil and pots for shifting the young stock about the end of this or the beginning of next month; a compost of strong, good, fibrous peat, with a little loam and plenty of sand, suits them admirably.

Camellias.—Be careful not to give them too much fire heat at this season; they will, however, require some in severe frosty weather. Those swelling their buds will be benefited by syringing occasionally; say twice a week. Attend to giving air, also to the watering.

Carnations and Picotees.—After a good cleaning, cutting away all dead foliage, &c., these plants should have a good watering, as they will now begin to make new growth. If the plants are generally dry at any one time they may be allowed to have a soft shower of rain, drying the foliage afterwards as soon as possible. Sparrows at this season are very troublesome, by eating and disfiguring the heart of the plant, if not well looked after. The soil having been well prepared and sweetened during the winter should now be kept dry, in readiness for potting early in March. The strong growing kinds will bear exposure much earlier than those of the opposite habit.

Cinerarias.—Many of the early kinds are already in flower. Later plants will now be growing very fast, and should have all the room that it is possible to spare them, tying out the flower shoots as they grow out of the foliage, thereby forming handsome, bushy plants. Late struck plants should now have a final re-potting, and these will flower in May.

Cold Frames.—Every advantage should be taken of fine weather to give the inmates of these all the light and air it is possible. If advantage has been taken of the many sunny days we have lately had, everything should look in the best possible condition. Water only when absolutely required. Attend well to the coverings at night.

Conservatory and Show-house.—These should now be a blaze of

flowers. With a little foresight and the ordinary means, this is a very easy matter now-a-days. There are two things which we wish strongly to insist upon—these are arrangement and cleanliness. If these are not properly studied and attended to, no matter how great the profusion and display of flowers, the effect will be anything but pleasing to a refined mind. A great variety of flowers at this season, crammed one among another, may please the vulgar, but cannot the person of taste—if the arrangement is not good, and every thing and place most scrupulously clean. We have seen a few nice flowers made by one person into a bouquet fit for Her Majesty the Queen, and we have seen better flowers made by another person into a bouquet not fit for a housemaid. In these instances the disposition and arrangement of the flowers in the bouquets made all the difference; and so it is in the conservatory and show-house—the arrangement is everything. The importance of the matter will, we trust, be an apology for our insisting on it here. Keep the hard-wooded plants—such as Heaths, Epacrises, Correas, Acacias, &c.—at the coolest end of the house, if possible. Attend carefully to watering. Give air at every favourable opportunity, and keep a sharp look-out for insects.

Cucumbers.—Under the increasing influence of solar light these will now begin to grow stronger and more rapidly than they have the last three months. Attend regularly to the thinning and training of the shoots. Maintain a moist, growing atmosphere, by sprinkling the paths and floors of the house three or four times a day, when other means are not provided for this purpose. Syringe the plants every sunny day. Sufficient artificial heat should always be used to admit of air being given freely every day, but particular care should be taken to guard against draughts. As a general rule a temperature of about 70° by night, and 75° by day, with an increase of 10° or 15° by sun heat. A good steady bottom heat is indispensable to ensure success. Attend to the young plants, and shift or earth up when necessary; above all things keep them near the glass.

Dahlias.—The general stock should now be started into growth by placing the roots into a little heat, and striking the cuttings in the ordinary way. But very little forcing, however, is necessary, unless a very large number of plants is required from each root. Pot roots should not be started into growth for some time, or they will produce weakly drawn plants.

Flower Garden.—Get on with planting in open, mild weather. Endeavour to get completed all alterations of beds, borders, lawns, walks, water, &c. Turn and fresh gravel walks, and sweep and roll walks and lawns. Plant herbaceous plants of all kinds. Prune and nail, or tie up, such hardy climbers as Honeysuckles and Jasmines. In fine weather remove daily the protection from half-hardy plants, but cover at nights until all danger from the weather is past.

Forcing Hardy Shrubs.—The forcing of hardy shrubs from this time forward is very easy work. All that is necessary is a nice, moist, growing atmosphere, with a steady bottom heat and some air daily. Plants fresh introduced should be placed at the cool end of the house. Put in plenty of Roses, Lilacs, Kalmias, Azaleas, and the different

kinds of Rhododendrons. Syringe two or three times daily, water when necessary.

Forcing Ground.—Keep up linings to hotbeds in operation. Make fresh beds for Asparagus to come into use after those now at work. See to successional crops of Seakale and Rhubarb. Plant Ash-leaved Kidney Potatoes in pits or frames on a nice steady bottom heat. Keep them near the glass and give them plenty of air; when they begin to grow they will need attention in watering, &c. Sow Radishes and Horn Carrots, on slight hotbeds. Sow Mustard and Cress weekly for succession. If not already done, put some roots of Tarragon and Mint into heat to force.

Fruit (hardy).—Though the autumn is, without question, the best time for planting, still the present is a very good time, weather, &c. being favourable; and where circumstances have prevented its being done in the autumn, we strongly recommend its being done immediately. All ground intended to be planted should be well trenched and thoroughly drained, if it is required. In stiff heavy land roots should be kept as near the surface as possible. There is one thing that should be always borne in mind in the planting of fruit trees, and that is, that the borders should not be made too rich in manurial matters; the evil consequences of which are that the trees acquire, when planted in highly enriched borders, a plethoric habit—they make gross watery shoots, which in nine seasons out of ten never ripen. From trees in this state there is nothing to be expected save disappointment; we may annually look for fruit and look in vain. In planting make good wide holes; spread the roots well out, and see the soil fills up every space under and between the roots. Prune Apples and Pears, and if any of them are crowded with wood or spurs do not be frightened to thin them out well, always, of course, leaving the best. In fine weather prune and nail Peaches, Nectarines, Apricots, Plums, and Cherries. Shorten back Raspberry Canes. Finish pruning of Gooseberry and Currant bushes, and dig the soil over.

Fuchsias.—These may now be propagated freely in a little heat; cuttings struck now will make fine specimen plants, if well attended to and pushed along. Late autumn struck cuttings, or those struck during the winter, make fine pyramidal plants, if grown in a little heat from this time, by giving them plenty of root room. Old plants may now be shaken out of the old soil, and re-potted into pots about one-half the size of those used for blooming them in, after which place them in a moist, shady situation. The syringe should be drawn over them twice a day, morning and evening. Continue to propagate for late bloom.

Greenhouse (hard-wooded plants).—Seize every opportunity to clean and tie out the specimen plants. Success in plant growing principally depends on constant attention to minutiae—in giving air, in watering, stopping, thinning, and tying out of shoots—in keeping down insects, &c. In frosty weather just keep as much artificial heat as is consistent with the well-being of the plants; guard against what would excite a too early growth. Water in the morning, when it is necessary. Give air freely on fine days. *Soft-wooded Plants.*—The potting of these

should be proceeded with towards the end of the month; when potted, place them in a nice moist growing atmosphere. Keep them near the glass. Do not crowd them if you want specimens; give air in fine weather; fumigate for green-fly.

Hollyhocks.—Autumn struck cuttings, if not already in good-sized pots, should be re-potted without loss of time, to prevent them becoming pot-bound and throwing up premature spikes of bloom. Seedlings should be pricked off into small thumb-pots, one in each, as soon as their second leaf appears. Continue to put in cuttings, any struck during this month will flower well if attention be paid to them.

Kitchen Garden.—This is an important time for the kitchen gardener; it is now that he is called upon to exercise his thinking faculties, for his whole success in the approaching season depends in no small degree on the plans and arrangements now decided upon. If the weather or any other circumstance has prevented autumn operations—such as draining, trenching, digging, &c.—from being duly carried out, no time should be lost in completing them. Now is a good time to prepare labels for naming vegetables, also for preparing Pea-rods. All work of this kind should be done as much beforehand as possible; they will then be in readiness when wanted, and will not then take labour from other necessary operations. If the weather be mild towards the end of the month, Cauliflowers and Lettuces from frames may be planted on warm borders. Plant Cabbages, also autumn sown Onions and Artichokes. Plant Eschallots and Garlic. Plant herbs of kinds. Plant Ash-leaved Kidney Potatoes, that have been sprouted, along the sides of south walls, also on warm sheltered borders; and towards the end of the month the whole of the early crops should be planted. Sow Peas and Beans twice during the month, and see that the mice do not disturb the Peas that are just coming up. If the land is in nice working condition towards the end of the month, sow some early Dutch Turnips, a good breadth of Parsley, also of Parsnips, and Horn Carrots and Spinach. Sow Savoys, Brussels Sprouts, and a few of the earlier kinds of Broccoli. Savoys and Brussels Sprouts are always finest when planted out early; they have then the summer to grow.

Melons.—Attend well to the young plants, they require some care at this season to have them strong and healthy. Sow a few more of the early scarlet-fleshed kinds, give them a nice bottom heat.

Orchard-house.—All that is necessary here at present is merely to ventilate freely when the state of the weather permits. Do not be in too great a hurry to water or do anything to excite growth.

Pansies.—Re-pot at once such as are intended to be bloomed in pots under glass, or any other kind of protection. If the soil is sufficiently dry plant out into beds those wintered in pots for the purpose. Top dress autumn planted beds when the weather is dry and favourable.

Peach-forcing.—If there is any secret in Peach-forcing it lies in flowering them under a comparatively low degree of temperature; under ordinary circumstances a night temperature of about 50° is a safe standard whilst in flower. When the fruit is set it should be gradually raised to 60°, which should not be exceeded until the stoning is over; then raise from 65° to 70°. When the fruit are all set

syringe heavily, to wash off the old dead blooms and to keep the foliage healthy. Water inside the borders. Go often over the trees and disbud, but do not remove too many at one time. Succession houses coming into bloom will require all the air possible, and in other respects should be treated as the early house.

Pelargoniums.—As these plants will now be growing very fast some time must be devoted to forming handsome plants by tying out the side shoots and attending closely to the watering, seeing that it penetrates through the entire ball of earth, after having been kept comparatively dry for some time. Those for late flowering may now receive their final re-potting. Keep all perfectly clean, and the house tolerably warm, by closing it early in the afternoon.

Pinery.—Maintain a regular bottom heat of from 80° to 90°. Fruit now swelling should have liberal supplies of water and a moist growing atmosphere. Plants in flower and showing fruit should have a rather dry atmosphere. Plants intended for autumn fruiting will now require considerable attention. Though they should not have any excitement to make them “drawn,” still they should be kept steadily growing; give a little air when the weather permits. Succession plants should have a bottom heat of about 80°, a day temperature of about 70°, with air according to the state of the weather. This treatment will carry them through to the potting next month, for which have everything ready, so as to seize the best time.

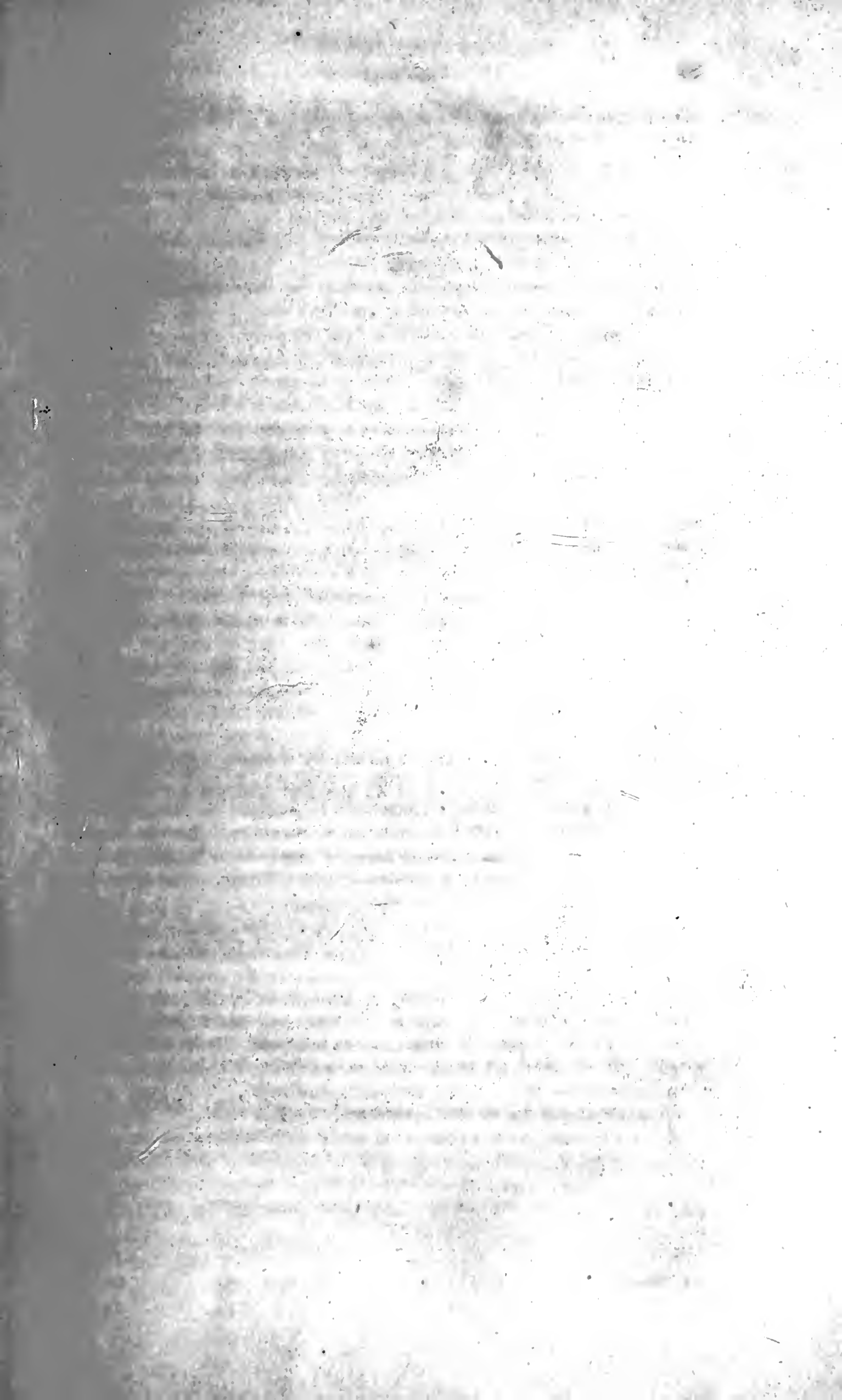
Pinks.—Stirring the surface of the soil and keeping the plants in an erect position is all that can be done for a time, excepting the very essential top dressing required towards the end of the month, when the beds are in a dry state.

Strawberry-forcing.—Strawberry-forcing is now a very easy matter if the plants have been properly prepared the previous autumn. If they have not, better throw the whole lot away than bother with them, for you will not by any treatment now ensure satisfactory results. Plants in flower should have all the air possible, otherwise they go “blind.” When set, thin all the small fruit. Fumigate for green-fly. Introduce a fresh batch every ten days or so.

Verbenas.—Now is the time for a general propagation; any plants struck this month will be both early and strong; choose healthy, vigorous cuttings.

Vinery.—Attend to the thinning of the berries in the early house as soon as possible after they are set. Stop laterals. Disbud Vines breaking, and stop and tie down shoots when fit. Start successional houses. Water well all inside borders, and keep a moist atmosphere, except when in flower. See directions last month.

Tulips.—If the bed is well made and drained cold will not injure them during the present month, after which they will require protecting in bad weather.





Calceolaria
Gem. (Cole)
Plate 124.

THE CALCEOLARIA.

(PLATE 124)

THE privilege of penning a few comments to accompany the illustration given in the *FLORIST* for August, 1853, was accorded us, on reference to which will be found the following: "We cannot, however, consider the *Calceolaria* in its present state in any other light than that of an annual; until an increased amount of shrubbiness has been infused into their constitution, we fear they cannot be looked upon as safe subjects to be classified, or rather elevated into the ranks of florists' flowers." The three seasons which have intervened since the foregoing was published in no way tend to change the notions and assertions then made. We are strong in the belief that the *Calceolaria* has yet to be produced and cultivated with a far more important standing in the eyes of the general public than growers at present have made it assume. We shall endeavour in this brief notice to recite a few particulars relative thereto, which are founded on practical knowledge gained in the cultivation of the subject under consideration.

Hitherto the herbaceous (what we term annual) kinds have been the principal sorts cultivated for exhibition; these, for the most part, are obtained from "a packet of seeds" sown and treated as is needful for common half hardy annuals, and noble specimens have been produced; but, after all, they are mere annuals, and, to our thinking, of less value than perpetuated varieties may be made to attain.

Hitherto, no illustration of a shrubby *Calceolaria* has graced the pages of the *FLORIST*; this remissness (if we may so censure the conductors) is, however, now atoned for, the foreknowledge of which, together with the licence to address the readers of so important and standard a work as the *FLORIST*, emboldens us to enlarge on the subject.

The faithful portraiture of sterling novelties has ever been the characteristic feature of the present work; and right gladly did we observe the well-merited acknowledgment accorded to Mr. Andrews by the conductors in the opening number of the present (tenth) volume. We refer to the topic with much pleasure, especially so since the plant—*Calceolaria Gem*—exhibited as a seedling, came officially under our notice at one of the Regent's Park exhibitions in 1856. Need we relate how great was the delight that inspection afforded us?

Mr. J. Cole, Keyfield, St. Alban's, Herts, has been for some

time prosecuting the study of this tribe, and has also most successfully contributed to our store of meritorious novelties; the illustration here given is one of his latest introductions. The close compact truss of flower, with the foliage on the footstalks, denotes its shrubby habit. It is most appropriately named, being, indeed, a Gem of the highest order, and destined to be the forerunner and progenitor of a race long needed; and through it the shrubby *Calceolaria* bids fair, and with justice, to become an important article of commerce. Possessing a double claim, in its adaptability to bed and border decoration, as well as to pot culture, it also supplies a colour in which all other subjects of similar habit and constitution are deficient; and by its brightness renders the garden cheerful in those enjoyable summer evenings when the sun is sinking below the horizon, and when less gay colours are all but unobservable; it is then, more particularly, that the bright yellow of the shrubby *Calceolaria* rivets the attention, while the sorts with bronzy, coppery, and crimson tints can only be seen to advantage when the garden is less enjoyable, by reason of the heat of a vertical sun.

Raisers of seedlings, and especially Mr. Cole, will do well to remember that stature or habit is all in all to the bedding *Calceolaria*, and no amount of well-formed flowers can compensate for its absence. We must have short joints and flower-stalks of sufficient length and strength to display and sustain a full bulk of blossoms against the vicissitudes of wind and weather; to this end, also, the orifice or mouth must not be large, or the blooms will become so heavy, from their retention of water after a shower, as to be unable to maintain their erect position, unless supported by footstalks of extraordinary strength. And the larger the flower the greater will be the difficulty in this respect.

Since the majority of floral societies acknowledge the importance of the *Calceolaria*, by inscribing it in their schedules, let us offer a word of advice: institute a class for each kind—shrubby and herbaceous—the one is so readily perpetuated that its recognition as a florists' flower is universal, while the other has hitherto established no claim to that distinction. That property which was, until quite recently, peculiar to the latter, viz., its sportiveness in giving colours in spots, bands, and other indescribable delineations—will soon, nay, already has become an attribute of the former also; and when this quality becomes (as it speedily will) more widely disseminated among the shrubby kinds, let the annual or herbaceous sorts look well to their laurels.

The evils which beset the cultivation of the shrubby *Calceolaria* in beds or borders are entirely overcome under pot culture, by the protection which glass and other coverings afford; hence the necessity for distinguishing clearly the capability of seedling

specimens, and of ascertaining whether the house or the border will be their most appropriate location; of the former we will here offer a few remarks.

Growing young shoots of the shrubby *Calceolaria* strike freely towards the end of summer, when the sun's heat is on the decline, a dark, cool situation being desirable; these, when struck and potted off, getting established, may be stopped, and will then break into lateral shoots; these shoots can be tied out, trained, and again stopped, in every way similar to the treatment given in the formation of *Pelargonium* specimen bottoms—with this difference, that *Pelargoniums* make their principal growth, or should do so, before Christmas, the shrubby *Calceolaria* after. Early struck cuttings, if healthy, well managed, and kept well at their work, will make large specimens for the June exhibitions. Some kinds will do much better from young plants than by keeping the old stools. They will in many respects respond to the stopping, training, repotting; and in due time, root-pruning, potting back into smaller pots, potting on, &c., as do *Pelargoniums*, using rich soil, and by this course of treatment will give a corresponding number of flower-spikes and blooms to the breaks made. What treasures have we yet in store! And when the time shall have arrived, how gorgeous must be the display which two and three-year old specimens must produce!

To those inclined to test our recommendation we offer a brief list of sorts, in which some diversity of colour and adaptability exists.

SIX SHRUBBY CALCEOLARIAS FOR BEDDING AS WELL AS POT CULTURE.

- Beauty of Montreal, bright light crimson
- Kayi, yellow
- *King of Sardinia (Cole), rich crimson
- *Orange Perfection (Cole), bright orange
- Prince of Orange (Cole), bright orange brown
- *Yellow Prince of Orange (Cole), bright yellow

SIX SHRUBBY OR SUB-SHRUBBY CALCEOLARIAS, BEST SUITED FOR POT CULTURE.

- Ajax (Pince), brownish red, with yellow margin
- *Eclipse (Cole), bright crimson scarlet
- *Gem (Cole), orange brown with yellow margin (*see Illustration*)
- *Hawk (Cole), orange *spotted* brown
- *Hebe (Cole), yellow *dotted* bronzy red
- *Heywood Hawkins (Henderson), orange *spotted* brown

It may be stated that ALL are well adapted for pot culture; those marked thus * are highly commended for exhibition.

JOHN EDWARDS.

London, Feb. 16.

DO EXHIBITIONS ENCOURAGE HORTICULTURE AS
THEY OUGHT?

I CAREFULLY perused the article under this head in your January number, and had made some "notes" for additional evidence on the same subject, when with your February number came Mr. Thomson's reply "*vindictory*," which has compelled me to go a little out of my way for the purpose of alluding to the question raised by the discussion.

In the first place let me thank you, or rather your reporter of the show in question, for having had the moral courage, when he saw what appeared to him a fault in cultivation, to name it, and assigning his reasons for so doing; for depend upon it this straightforward way of noticing any particular subject exhibited, is the very base, and only one, on which the world of lookers-on may expect to learn anything useful from exhibitions. My own opinion why exhibitions do not encourage horticulture as they ought (of which you complain), is that it is principally owing to the absence of a sound and independent critique on the subjects exhibited, which, while doing justice to what was meritorious in culture, would not be afraid to condemn what was deserving censure; and show where cultivation was based on false principles, or where *mistakes* had been committed, as your reporter very mildly states it. Looking the article carefully through, it appears to me the aim of your reporter, both in reference to the Park and North of England Shows, has been solely to elucidate this principle, and for which he deserves the best thanks of us all.

Whether Mr. Thomson's Pelargoniums deserved the comment made on them or not, I do not profess to know, nor does it affect the question as I view it. They were so considered by your reporter, who refers to other specimens near them to show that he was right. But I take it as forming a precedent, which I should like to see acted upon at future exhibitions; for if reporters are there for no other purpose than to bandy compliments with exhibitors, and indiscriminately praise all they see, then I say a heavy blow is being struck at all horticultural exhibitions as teachers of practical gardening, and gardening periodicals may from henceforth content themselves with merely registering the prize productions and their owners, leaving the "ruck" below the lowest card in blissful obscurity by not posting their names. But assuredly there is no motive teaching in this, for if failures teach us a wiser lesson than success, then failures should be commented on, and this discussion will do more good to Pelargonium culture than you may suppose, for it will tend to elicit sound principles, and practically establish them. Well, but what your reporter calls a mistake Mr. Thomson states was no mistake at all; he tells your readers they were designed for some particular object, about which your reporter knew nothing (how should he?), and that they succeeded admirably, which nobody questions. I am a great stickler for the respect due to private opinions, as well as for whatever crotchets any individual may indulge in, and acting on this, should condemn all attempts to criticise private practice, however absurd it may be. But the case has a widely different aspect when plants (or

any other subjects) are taken to an exhibition, where, for the time being, the public has an interest in them, and they are fairly within the pale of criticism—they must be judged as they then and there appear (not what they are to be), and provided that criticism is a fair and open one, it is for the benefit of horticulture, as well as exhibitors, that the truth is recorded; which, on public ground, ought not to be unpalatable to any one when viewed in its proper light.

Now, Dear Mr. Editor,—I have digressed so far from my NOTES proper, that I fear you will have to squeeze them into a very small corner, if you insert them at all, but whether or not, I must jot down a few. First then, Is the winter over? everyone is asking me; my answer to which is, that if not over, the mischief already done is quite sufficient for any ordinary winter; kitchen garden vegetables have suffered immensely from catching frosts, with mild intervals between to excite action. Broccoli, Spinach, Lettuce, and even Cabbage plants in many instances are destroyed from this cause; no time must be lost therefore in making good failures. The land generally speaking is sound and healthy, *i. e.* dry, and will be found in good condition wherever rough digging or trenching has been effected, even for a short time. The planting of deciduous trees and shrubs should be completed as quickly as possible, but don't touch evergreens, excepting such hardy things as Spruce Firs, &c., the dry winds of March and April may make you regret the step. Whatever is planted, provide some dryish pulverised soil to plant in, seeing that it is nicely worked in among the roots. Careful planters, when they can, dig the holes for the trees some months before planting, to sweeten and pulverise the soil thrown out, which greatly assists the formation of roots when the trees are planted. Larch should always be felled towards the end of summer, when its vessels are charged with turpentine, and it endures much longer, but where the bark is used, it should be taken off when the sap rises. It is not generally known that the bark of Larch makes one of the cheapest and most durable of roofing materials for farm buildings, sheds, &c., lasting many years. After taking it from the tree, it must be cut in proper lengths and flattened; when dry it is fit for use. Potatoes have rotted more in the pits this winter than we remember; the complaints on this are general and widely spread, and yet I do not remember them ever being better harvested.

G. F.

[Our correspondent has so completely anticipated our views on the question of Pelargoniums as to render unnecessary an article written on this discussion. We have received other letters on the subject, but do not consider it necessary to publish them, as "G. F.," and "Omicron," (see page 75), in giving their opinions, record the views generally entertained with regard to Mr. Thomson's letter.—ED.]

THE QUILLED GERMAN ASTER; ITS CULTURE FOR EXHIBITION.

THE twenty-four Asters shown by me at the Crystal Palace having been much admired, perhaps a few words on this, my favourite annual, may not be unacceptable to your readers.

I think a great cause of failure often arises from the seed being sown too early, so that the plants begin to flower in the long days imperfectly, and by September they are too far spent to produce fine blooms in their proper season. My memorandum book informs me that for the last eight years, I have sown some time between the 26th of April and the 14th of May. In 1856, I sowed on the 5th of May, pricked out on the 12th of June, and finally planted out to bloom on the 28th. The plan I adopt is, to sow the seed in a cold frame under glass, in drills six inches apart, and not too thick in the drills, say the first week in May; the plants come up in a few days, when they must have plenty of air; and as soon as they are about an inch high, take the glass quite off for two or three days and then prick them out on a slight hot-bed three or four inches apart; here they will take root in a day or two without shade or glass. Before the plants begin to run up in the stem, plant them out where they are to stand for blooming, in well manured soil, being careful to remove them with as much mould attached to the roots as possible; let the rows be one foot apart, and the plants ten inches or a foot apart in the rows. If the weather is dry, they must be watered until they take root; afterwards keep clean from weeds, stir between the plants, and about the first week in August, top dress with rotten dung from an old hot-bed (the one on which the young plants were pricked out will be in a good state if well beaten up), and give a good soaking of water over all if the soil is dry. The plants will now require to be tied to small stakes, and as soon as it can be seen which buds are likely to make good blooms, thin them out, leaving only three or four to a plant; I often take out the centre one; small shoots will also come at the base of the leaves, these must be removed as they appear. As the blooms show, I shade all the best with flat boards ten inches square with a small hole in the middle, stuck on the point of a stick just above the tallest bloom on the plant. I say shade, but the chief thing is to keep off the wet from the flower, for I find small glasses such as are used by Carnation growers answer first-rate, even without any shade. The best blooms must be well secured from being blown about by the wind, and then if you see a fine young bloom on the 1st of September, you may hope to show it well on the 9th at the Crystal Palace, for a good Aster is not like a good Dahlia, gone in a day or two. Asters do well sown at once where they are to stand, but as they are often eaten off as fast as they appear above-ground by worms, slugs, &c., it is not safe to trust to this plan. The seed may also be sown in pots or pans, but in this way, if left a few days too long before planting out, they will be spoiled, so that I much prefer the plan I have endeavoured to describe.

B. H. BETTERIDGE.

THE FIG.

HISTORY.—This fruit is a native of Asia and Barbary, and appears to have been naturalised in the south of Europe, and is sufficiently hardy to withstand the climate of England with but slight protection. This is the most ancient fruit on record; it is frequently mentioned in Scripture history, and is considered by some writers to have been known by the inhabitants of the East as an important if not a primary article of food, anterior to their knowledge of the uses of corn. However this may be, we find all writers of antiquity agree in placing the Fig in the very first ages of the post-diluvian world; and we gather from the traditions handed down to us from the Greeks, that it supplied their principal necessities as a constant food either in a fresh or dried state. It also appears that there were several methods of preparing it for use, as we find that cakes made of Figs were included in the provisions presented by the widow of Nabal to David to appease his wrath; and again, that flour, wine, cheese, and Figs, were the principal contributions of each person to the common stock, when Lycurgus, the law-giver of Sparta, decreed that the Spartan men should dine in the Common Hall.

It was also considered of such great importance in Athens, that the Athenians prohibited their export from Attica. It is said that this circumstance was the origin of our word “sycophant,” from the compound word *sukon* a Fig, and *phano* to show, which was applied to those persons who gave information of the export of Figs from Attica, contrary to law.

The Romans soon appear to have appreciated the value of the Fig, for in some of their early excursions they brought it from Syria into Italy, and when Rome was in all her glory, it was carried next the vine in their processions in honour of Bacchus, as the patron of joy and plenty. From Italy it would soon spread through southern Europe; and it is very probable that it was introduced into Britain, by the Romans, with the vine, towards the close of their influence in the island, as mention is made of the vine in some of the earliest Saxon Charters and Records; consequently we are led to believe that they were found upon the island at the time of their invasion, but they could not have been long introduced, for we learn from the very interesting writings of Tacitus, that neither the Fig nor Vine were known in Britain during the governorship of his father-in-law, Agricola, which was about the year A.D. 80; consequently, if they were introduced, it would be subsequent to this period; and the invasion of the Saxons closely following, their hands would otherwise be too full with their new conquest to attend to its production; therefore, as the Fig would not have been introduced long enough to become established upon the island, it would soon be lost. But, however this may be, it was not till 1525 that we have any authentic notice of its introduction, in which year it was introduced from Italy by Cardinal Pole, and planted in the gardens of Lambeth Palace, where they existed till about the year 1830, when they were cut down by the late Archbishop Howley, in consequence of rebuilding the Palace—having reached the age of 305 years, and attained a size far beyond

that ever observed in their native country. This fact goes far to show the adaptability of the English climate to Fig culture, or at any rate the southern portion thereof. But this adaptability does not appear to have been taken advantage of in late years as formerly. In the earlier volumes of the "Transactions of the Horticultural Society" are some very interesting accounts of Fig gardens and prolific Fig trees, then existing in the southern counties; and, although it appears from those reports there seldom failed a crop—although like all other fruit in this changeable climate, the quality varied—I remember seeing in Sussex a fine old standard tree in 1846, literally covered with fruit, then ripening; the proprietor afterwards told me that he gathered upwards of eighty dozen from it, and that the birds and wasps consumed fully twenty dozen more; and this tree never had more care bestowed upon it than is generally bestowed upon standard Apples or Plums, yet was equally or more sure of a crop.

The people of England do not appear to relish the Fig with that degree of keenness that our Continental neighbours do both in France and Italy. It is constantly to be met with at the table both in its ripe and unripe state, either stewed or fried, as well as at their desserts. It appears to be more appreciated here in its dried state than otherwise, very large importations of which are annually received from the isles and borders of the Mediterranean, especially Turkey, Greece, Italy, Spain, and the south of France, the yearly increase in which shows that it is not now looked upon with the same contempt as when it gave rise to the common expression of "not worth a Fig." A diversity of opinion appears to exist as to whether this expression originated in England; but if so it would be upon its first introduction. We find from an inscription which was upon the wall against a celebrated Fig tree in the garden of the Dean of Winchester, that King James the First had tasted the fruit of that tree with great pleasure, in the year 1623. Shakspeare also appears to have appreciated the Fig, for in "Midsummer Night's Dream" he makes Titania say:—

"Feed him with Apricots and Dewberrys
With purple Grapes, green Figs, and Mulberrys."

Cultivation.—The Fig will thrive in almost any kind of soil, but for out-door culture I should choose a dry and not over rich mould for them, in a light and airy situation: I have found a too rich soil cause them to grow too luxuriant and succulent; consequently the wood has not been sufficiently ripened to stand the winter;—short-jointed, well-ripened wood being the object to attain if a crop of fruit is expected. In the southern counties of England I should not plant Figs against the walls, as I consider that dwarf standards do equally well if not better than trees upon walls, if planted in warm sheltered situations. These will require but little attention, merely going over in October to cut out all decayed branches, and to keep the centres open for the admission of light.

North of the Thames I consider the aid of a wall indispensable for the well-being of this fruit; and in the north of England it requires the aid of a slight protecting material, either mats, or what is better,

to be well covered with straw or the common Fern ;—but in performing this operation a dry day should be chosen. I should recommend the trees to be planted not less than eighteen or twenty feet apart. Some cultivators recommend horizontal training, but I prefer the fan shape; this, however, is a mere matter of taste. As soon as the buds break in spring, I go over the trees and rub off all the foreright ones and those I consider will not be required to nail in for the next season's crop; the reserved shoots are allowed to grow "wild" from the wall all the summer. This I consider very necessary in consequence of the Fig being double bearing in its native country, and in some places treble bearing; therefore, by nailing in too soon, the young fruit is apt to become excited and swell too large to withstand the winter. From the middle to the end of August I have found to be the best time to nail the young shoots in; by then doing it I find it assist to ripen the wood materially. Just at the fall of the leaf is the time to do all necessary pruning, but very little of this ought to be required, if rubbing the buds off in spring is properly attended to; at this time, also, I pinch out the terminal bud of each shoot; this process will materially strengthen the young fruit. About the first or second week in November will be found a good time to cover the trees for winter, and the coverings should remain till the beginning of April; they should then be taken away only by degrees.

For in-door cultivation the Fig is the most prolific of all our fruits, giving us two crops each season, well repaying any extra trouble we may bestow upon it. I have a quantity of trees here trained on a wire trellis at the back of a large vinery, consequently they are made subservient to the vines, and are subject to the same temperature, &c., but I find them break into leaf a fortnight earlier than the vines do in the same house. I go over these and rub off all superfluous buds as recommended for out-door culture, as soon as the new shoots have made from five to six leaves; I then again go over them and pinch the terminal bud with the finger and thumb, till I find it yield to the pressure. This stops the branch from elongating, and the sap is thrown into the young fruit, one of which will be found at the base of every leaf. This is the second crop (the first crop having shown itself upon the wood of last autumn). About the time the first crop is ripening, some of the lateral buds will be found to break; these should be gone over, reserving only the strongest. These, and indeed all shoots, I keep closely tied in that they may obtain all the light possible. During the growing season, I liberally supply these trees with water enriched by the drainings from a farm-yard. About the time the second crop is ripening, I gradually withhold the water from them to throw them into a dormant state. As soon as I find the leaves are ripe and begin to fall, I do all necessary pruning and stopping as recommended for out-door culture.

The Fig will be found to answer most admirably in pots with the above treatment. The following are a few of the best sorts. I perceive Mr. Veitch, of Chelsea, is offering a new one, which is said to be a very superior variety and to bear in a very young state. It is called the

“Singleton Perpetual Fig,” of which Mr. Thompson, of the Horticultural Society, says—“Fruit small, round, with a cylindrical green stalk of medium thickness; skin green and very thin; pulp rose or salmon coloured, exceedingly rich and sugary, a most excellent variety, and highly deserving cultivation.” To this add :

Brown or Purple coloured	Turkey
Ischia, both brown and black	White or Yellow
Italian, or Murrey	Marseilles
Brunswick	Genoa
Malta	

THOMAS W. ABBOTT.

LILIUM LANCIFOLIUM.

THIS exceedingly beautiful Liliu must, I am sure, have a very high standing in the estimation of all lovers of flowers, for on entering a conservatory or any other floral erection, where one is situated, you are immediately attracted towards it, not only by its showy blossoms, but by the inhalation of the rich and refreshing fragrance which it throws out in great profusion; and how many of my readers are there who have not been tempted to approach it so near that they have been somewhat horrified to find themselves marked with its peculiar pollen, as though it would hint to them the moral of “Beware of temptation.”

But it is very rarely to be seen in such vigorous beauty as proper cultivation will bring it to. What is the cause? Is it that some amateurs and gardeners do not consider it worthy of such attention as it requires to bring it to any sort of perfection, or is it that they do not adopt the proper system for its cultivation? If it is the first cause, I will ask them to follow out the system which I shall recommend, and then I feel assured that it will soon raise itself to its proper standing in their estimation. If it is the latter, I will endeavour to explain to them, as clearly as I possibly can, if not the proper system for its cultivation, the system upon which I have grown them in great perfection.

The generality of them you will find potted with their bulbs just peeping above the surface of the soil, or, otherwise, immediately underneath it, and they throw up little dwindling stems not larger than the tube of a common tobacco-pipe, from bulbs that ought to throw up stout vigorous stems as large as the bowl of one; and instead of the bulb increasing in size yearly it decreases, until it is unable to throw up a flowering stem at all, for the roots that are thrown out from underneath the bulb, and ought to have nothing more to do than to support and strengthen the bulb, have to support the plant altogether. I think all that are in any way acquainted with the habits of the *Lilium lancifolium* are aware, that when it has thrown up its stem to about 12 or 18 inches in height it begins to throw out stout fibres, in whorls or batches round the stem, for four or five inches up, but in the usual

mode of potting them these are of no use whatever to the plant, because they are not able to perform the duty for which they were by nature intended—to support the stem when growing and flowering.

I will now explain the system by which I have found them to thrive best. Repot them every season, and pot them at once into the pots you intend them to flower in; the best season to perform this in is about the latter end of January. Use a soil composed of three parts turfy loam, well broken to pieces, to one part of well-rotted dung, with a good intermixture of road and silver sand. Prepare the pot in the usual way of draining, cover the drainage with the soil named above to about an inch in depth, and place the bulb on it in the centre of the pot, and cover it on all sides with silver or drift sand, which will cause it to turn out clean the following season, and protect it from the ravages of the wire-worm, &c. Then fill the pot with soil up to its proper height, settle it down well, but do not press too firmly. If the soil is used in a moist state they will not require watering until they begin to show themselves breaking through the surface. Place them in a cold pit where they can have plenty of light and air; they will require a slight covering in very sharp weather; about the thickness of one mat will be quite sufficient. Let them remain in the pit until about the beginning of May, then remove them into some shaded situation out of doors; allow them to remain there until they come into bloom, when they can be removed into any place where they may be required.

After they have finished blooming stand them out in the sun until they have died down, then stack them on their sides in some dry place, to prevent them receiving any moisture until they are again repotted.

They may be increased very readily, either by the offsets they throw out so abundantly, or from the scales of an old bulb, or from seed. If you wish to seed them, it will be necessary to place them in heat (after they have shed the petals of the blossom) until the seed is ripened, otherwise it will not often be brought to maturity. If by scales, break them from off the bulb, and plant them in a pot precisely the same as cuttings, with the large end downwards and the point left out above the soil.

Frogmore.

E. SPEED.

OVERPOTTING PELARGONIUMS.

I HAVE read with much surprise the lengthy remarks of Mr. David Thomson, of Dyrham Park, in the *Florist* of last month; it appears to me that Mr. Thomson quite overlooks the fact that your reporter's remarks were made in reference to the plants in question, *as they appeared at the show, not half in bloom, and not as to what they might become some weeks after.* What would have been the fate of any one of the collections if they had been like Mr. David Thomson's plants, not half in bloom? Certainly they would have been placed by the judges much lower in the list of prizes, if placed at all.

Mr. Thomson says, his main object in exhibiting the plants was to

show that large symmetrical specimens could be grown without stakes, and complains that your reporter "steers quite clear" of this fact, and I think well he might, for the simple reason that it is no new thing for large and truly symmetrical specimens of Fancies to be exhibited without stakes; in fact they do not require generally any stakes at all, some few varieties with long flexible growth being the exceptions, and stakes are never applied to the trusses, as is done to the large flowered class of Pelargoniums.

But leaving Mr. T. to the enjoyment of his Fancies, I beg to say a few words on the subject of overpotting. I have been an ardent admirer and cultivator of the Pelargonium five-and-twenty years; and first I would remark that the best season for blooming the Pelargonium is the months of May and June, the finest bloom generally opening between the 20th May and the 15th June; secondly, the bloom never attains perfection in size, substance or colour, unless the pot is full of roots, technically called pot-bound; thirdly, that the final potting for bloom and the size of the "shift" must depend upon the time the plants are required to be in bloom. Late potting and large shifts cause strong and long continued growth, retarding the bloom, and sometimes causing an irregular head, the growing shoots protruding above the bloom.

OMICRON.

A FEW MORE WORDS ABOUT ORCHARD HOUSES.

I AM sorry to see by the last number of the *Florist*, that the "Few Words about Orchard Houses" in the November number, by "Pomona," have given Mr. Rivers offence. I beg to assure him, I did not intend my remarks to have that effect. From a love of truth, I was led to ask the writer of the "Notice" of the orchard houses at Sawbridge-worth, to give his "opinion on fruit trees in pots; as to whether there is any real economy or decided advantage in growing them in pots, to planting them in borders of soil." I thought some of the readers of the *Florist* might like to hear that opinion, therefore did I ask it through your pages. Having requested this opinion, I thought it could do no harm to state my own honest convictions on the subject. In doing so, I had not enough overweening self-conceit to fancy myself an oracle; I merely wished to show the interest I felt in a subject to which I have given much thought, and I always feel but too highly happy if a word or effort on my part can do any good. I know what it is to express an opinion contrary to that which may at the time be popular; I am not, therefore, surprised at Mr. Rivers' remarks, but they do not discourage me.

The few remarks I made, are only the expression of what I believe to be the truth; and I would here beg leave to observe, that to render any opinions valuable, one condition is necessary—they must be frank, honest, and free. The person who writes, must write what he thinks; write courteously, but uncompromisingly.

Many opinions are worthless, owing to a dread of giving offence, now to the majority, now to Mr. this, or Mr. that. A person should always write true to his convictions ; he should, as a matter of course, desire to wound no man's prejudices or feelings, but his first duty is truth ; he should write simply and naturally what he believes. I hope I may be pardoned for the above little digression ; I have been led into it from a desire to show Mr. Rivers and the readers of the *Florist* that in writing the " Few Words about Orchard Houses," I merely gave expression to my honest convictions. But to return to the matter in hand. I beg to observe that, so far from having said anything condemnatory of orchard houses, Mr. Rivers will find nearly at the commencement of my article these words, " That orchard houses are a valuable auxiliary to good gardens I am fully persuaded," and towards the end, these words, " I am as great an advocate for orchard houses as Mr. Rivers, but I would have them well built."

That Mr. R. may have found some truth not altogether very agreeable, is highly probable. The very interesting article in the January number, by " G. T.," of Stansted Park, fully corroborates what I said as to the decided advantage of planting the trees in borders to keeping them in pots. " G. T." says, (see *Florist*, page 18), " I may here mention that I consider it preferable to plant the trees out in the borders of large houses, as finer fruit and in greater abundance can be obtained from trees treated in that way." Hear that, Mr. Rivers. " G. T." of Stansted Park can get "*finer fruit and in greater abundance*" when the trees are planted out. Again, " G. T." says, " I have also had some very fine fruit from trees grown in pots, but not so large as from trees planted out." Mr. R. says he is tempted to offer " a few more words " about the assertions of " Pomona." Well ! and to what does he reply first ? He does not attempt a reply to facts which he knew were unanswerable, but nearly at the very end of my article he finds that I said, " To attempt to grow Grapes in span-roofed houses, not heated, will end in disappointment." Surely Mr. Rivers does not infer from this that I meant that Grapes could *never* be ripened in such houses. My words imply what I really meant, " that the attempt would *end* in disappointment." I know well (for I have often seen them), that Grapes will in some seasons ripen on open walls ; but most assuredly no gardener would call that Grape growing. I know well that Grapes will *some* seasons ripen in houses not heated, but they will not *every* season for a number of years, hence the ending in disappointment. The wood cannot *every* season be got well ripened in houses not heated, and it is vain to expect good, large, well ripened Grapes from unripened wood. As to growing Muscats, it is quite out of the question. Even first-rate Black Hamburgh Grapes cannot be grown in perfection in such houses year after year, for a number of years, consequently the attempt will *end* in disappointment. Some inferior sorts of Grapes may, perhaps, do with good management.

Mr. Rivers says, " I grow a large quantity for my own family in three houses not heated ; the Grapes never fail to ripen, and are always, from the free ventilation, first-rate in quality." In the " Notice " of

Sawbridgeworth in the October number, the writer, in speaking of the Grapes, says, "The Vines are brought in under the glass, and fruit freely, not large of course, but well coloured." I ask any gardener if these Grapes come up to his standard of good Grapes. I must confess they do not come up to mine. They may satisfy Mr. R. and his family, but I hope he will pardon me if I tell him they would not satisfy me.

I now come to the next point Mr. R. has noticed; he says, "Still allow me to notice one or two other remarks of the same person. My glass roofs resting on posts (see former volume), and filled in with Arbor-Vitæ hedges, are very recent erections, built for a special purpose, *i. e.*, to grow young fruit trees in, and to retard mid-season Peaches, which they do most effectually. My houses with shutters, more recently erected, according to 'Pomona,' were among the first orchard houses I built."

If I have fallen into an error in this matter, Mr. R. will find that the writer of the "Notice" of Sawbridgeworth in the October number fell into the same error; and as this was prior to mine, Mr. R. ought to have corrected this first, if he really felt so very anxious about setting the matter right.

Again, Mr. R. says, "In 1855, my Nectarines were nearly all below par." I ask, would they have been so had they had the assistance of a little artificial heat? No, for Mr. R. tells us the Stanwick is the finest of Nectarines when grown in houses that are heated.

I am tempted to make one or two more extracts from Mr. R.'s communication; he says, "The success that has attended the culture of Plums, Figs, Cherries, Pears, and Apples in pots at Stansted Park is very gratifying, and at once puts to flight the cavilling of 'Pomona.' More ripe Figs have been eaten in England these last five years than were ever seen or thought of before." I did not say that fruit trees could not be successfully grown in pots, very far from it; I have seen fruit trees of every kind grown in pots years before there was an orchard house at Sawbridgeworth. What I did say is, "that the cultivation of fruit trees in pots is attended by an *immense deal of labour.*" And we have the evidence of "G. T.", of Stansted Park, that trees planted out in borders bear "*finer fruit and in greater abundance.*" The cultivation of fruit trees in pots dates a long way back; there are very few forcing establishments of any note where Figs have not been grown in pots. Grapes in pots was practised long ere there was an orchard house at Sawbridgeworth. It is upwards of 20 years since I saw some grown as bushes for table; they were for a special purpose, and I have never seen any better than they were since then. The pot culture of Grapes is attended with a deal of labour, and again Peaches, Nectarines, Cherries, Plums, and Raspberries have been forced in pots for years before orchard houses were erected at Sawbridgeworth. Mr. R. says, "I have not changed my ideas with regard to the eligibility of fruit tree culture in pots," and again, "It is indeed a delightful mode." I am willing to admit the mode is delightful enough, but it gives me much greater delight to see a good house, with nice well managed trees planted in the borders; and to me it is more delightful to see six dozen

fine fruit on *one* tree so planted, than to see the same number of fruit on *half-a-dozen trees in pots*. Have, if you choose, a few trees in pots to stand in the spaces that may be unoccupied. A few words more before I conclude this article. In writing the "Few Words about Orchard Houses," which has given Mr. R. umbrage, I had no private motive; I had no self interest to serve. The subject is an interesting and important one, and I am always thankful for any information, either on this or any other subject, so I am ever ready to give whatever is in my power. It is our duty to seek after truth, to labour for knowledge, and without intending any offence, I freely, but at the same time honestly, expressed my candid convictions.

POMONA.

BEAUMONTIA GRANDIFLORA.

THIS beautiful evergreen climber, when in full flower, will form a grand feature either in the stove or conservatory. Few climbers are so well adapted to cover trellis work; being evergreen the effect is pleasing at all seasons, and especially when studded over with its large trumpet-shaped flowers, which are creamy white, and enhanced by a profusion of dark green Laurel-like foliage.

The *Beaumontia* is grown in various ways; sometimes planted out in a damp narrow border in the greenhouse or conservatory, where it can scarcely live for cold, consequently the roots are so cramped for want of space and bottom heat that it rarely or never shows a flower. To grow it well it should be planted out in a well prepared bed or border in the stove or conservatory, that is if provision be made for the border to receive a slight degree of heat, either by means of a flue or hot-water pipe, bottom heat being of the greatest importance to the well-being of this plant, and where a night temperature of from 50° to 55° is kept up.

The border should be made two feet deep, and about the same in width, or wider, if convenience will admit, filling up six inches at bottom with brickbats or any kind of rubble to ensure good drainage, then the rest of the border with the following compost:—Equal portions of turfy loam and peat well chopped together, mixing at the same time a quantity of small pebbles, which will keep the soil porous and retain also a due amount of humidity. This done the border will be ready for the plant, which may be planted at any time—spring being preferable, as the vital energies of most plants are then in full action. If the plant is found to be pot-bound, the matted parts require gently rubbing off, so that it may at once strike fresh root in the new soil.

The operation of planting finished, give it a good supply of water to settle down the soil; then tie it neatly to the trellis, not too tightly, and place a few rows of pebbles in a circular form round the collar of the plant (something in the way of paving), this will prevent the soil getting too close to the stem, as the *Beaumontia* is apt to damp off between the earth and air. If treated as above it will make one

vigorous shoot, which must be stopped in order to induce it to throw out lateral shoots; then the sublaterals will soon require to be stopped in the same manner, so that the trellis may get nicely covered. It may perhaps be two or three years before it flowers much, but after that time it will regularly, about the months of June or July, display its splendid blossoms.

As regards pruning, little of that is required, as the flowers are borne on the old wood; still, when past bearing, it must be removed to give room to the young shoots, which should be encouraged from the bottom part of the plant. During the growing season it requires to be duly watered at root, and well syringed all over two or three times a week; this will tend to keep it clean and healthy, and prevent the attacks of insects to a certain extent. The *Beaumontia* is named by Wallich, in memory of the lady of Colonel T. Beaumont, and for its beauty and strong habit of growing deserves to be extensively cultivated, especially where lofty trellises and naked rafters require covering.

C.

DO FRUIT TREES AND HYBRID RACES OF PLANTS DEGENERATE?

THIS question, affecting the entire productions of British gardens, has recently been opened afresh by a review of Dr. Lindley's "Theory of Horticulture," in the "Scottish Gardener," supposed to be by Professor Balfour, who supports the theory of the late Mr. Knight—that, "races of plants possess only a limited period of existence, beyond which it is impossible to keep them alive," and in so doing controverts the opinions of modern physiologists, including Dr. Lindley, who maintain the permanency of races in the vegetable kingdom, and attribute the so-called degeneracy observable in particular families of plants to causes over which the mere life of the plant or age of the race has no control or connexion.

This question is so intimately mixed up with the interests of Horticulture, and exercises so wide an influence on the results of the hybridizer's skill in the production of what are termed garden varieties of fruits, flowers, and vegetables, that we purpose, from time to time, placing such results as fall within our own observation, before our readers, and also take the present opportunity of soliciting evidence on the question from our correspondents interested in pomology or in raising new flowers and vegetables; for we quite agree with the writer in the "Scottish Gardener," that the question is "*not one of authority but evidence*"—to be settled solely by "*the statistics of facts and observation.*"

Among other fruit trees which are brought under notice in the article alluded to as furnishing examples to support his deductions, the writer quoted mentions the Golden Pippin, Redstreak, and Ribston Pippin Apples, which we are told now refuse to grow; or if they do manage to exist it is only in a diseased and worn-out condition—a prey to canker and other diseases: they are in the last stage of degeneracy,

and in a few years more will be numbered with the things that were. What is said of the Apple and Pear is also advanced against the Dahlia, Potato, &c., on which we shall have something hereafter to say.

Let us first take the Ribston Pippin Apple, which we are told formerly grew and produced fine fruit in East Lothian, as a standard tree, but that now it can only be grown as a wall fruit, except in some favoured spots. The trees named have been long since dead, and the scabby specimens of this once-fine fruit now exhibited in the shops of the Edinburgh fruiterers are considered by the writer conclusive evidence that it has lived its day, and must soon quit the stage altogether; the reviewer adding, "ever since the original tree in Yorkshire was *in extremis* this valuable variety was almost everywhere infected with canker." Thus he completely identifies himself with Mr. Knight's theory, which is, "that all plants of this species (the Apple) however propagated from the same stock, partake in some degree of the *same life*, in the habits of its youth, its maturity and decay." Of course, if the East Lothian trees, propagated as they must have been directly or indirectly from the original tree at Ribston, and as a consequence sickened with it, it should follow that throughout the breadth of the land trees originated in a similar manner from their common parent should be equally affected, or at any rate should show some symptoms of degeneracy. Unfortunately for this hypothesis, and fortunately for the character of this fine old fruit, we have evidence to the contrary under our immediate notice.

In the year 1773, Mr. Miles, a very respectable and intelligent gardener of his day, came from the neighbourhood of Leatherhead, in Surrey, to this place, and brought with him one or more young trees of the Ribston Pippin Apple, which he had previously obtained direct from Yorkshire. One of these trees is now standing in our garden. The soil in which it grows is a poor dry sand only a few inches in depth, and resting on a sandstone rock; a soil, you will say, altogether unsuitable for the Apple; notwithstanding this it has attained a moderate size, and in its time has produced annually many bushels of fine fruit. Two years back, this octogenarian gave me two or three bushels of produce, nearly all of which were perfect. Half-a-dozen years ago, we were compelled to plant a belt of Laurels nearly close to its stem, and the roots were then much injured, and have suffered since from the Laurels robbing the tree of part of its nourishment, so that it is not now so vigorous as formerly, and makes but little wood. Some few years back we had to cut down six or seven very large trees of the same kind, which it is recorded had been grafted from the tree noticed above. These were planted in a quarter of the kitchen garden, in 1775, the soil of which was, however, little more than a bed of sand;—at the time we mention, these had grown to so large a size as to render the quarter unfit for growing vegetables, besides shading a south wall near them. It was heart-breaking work to fell such fine trees, which produced us loads of the finest fruit; but as we had an orchard besides, it was done: the boles of some of them were sawed up into planks for furniture. The trees at the time were in full vigour, with no indications of decay about them, and if allowed to remain would doubtless

have kept healthy and productive for years to come. Unlike their relations in the north, they were evidently not troubled with sympathetic sensations, and thus escaped the fate of the trees so pathetically lamented over by our reviewer. We can point out now, in the orchards of this neighbourhood, trees of this variety, perfectly healthy, and of large size, obtained from the original tree, as confirmatory of the above, if such were necessary.

Let us next see how young trees appear to withstand this degenerating fever, which our reviewer tells us will soon exterminate the variety; and here again we appeal to our own orchard, (though when time permits, we shall take a much wider district) planted seven years since; knowing how well the Ribston Pippin thrives here, you may be sure it was not forgotten; and by looking over the trees, we found twelve had been planted, two of which were infected with canker* in their stems; the other ten are growing vigorously, quite as strong and clean to all appearance as the Bedfordshire Foundling and Blenheim Orange, two well-known vigorous kinds. Two years ago they produced a moderate crop of very fine fruit, and up to this time give every promise that they will make fine trees; certainly there are no indications at present that would lead to the conclusion that the kind was wearing out, all the evidence being on the other side. In the same orchard are six trees of the old Golden Pippin, of which the writer in question informs us—we give his own words: “The fact is undeniable, that the Golden Pippin, once planted in orchards in Herefordshire and other parts of England has, for the most part, retired to sheltered gardens, and to warm aspects on walls. Where it does exist it is a delicate plant, and it is far from plentiful.” Now our orchard, so far from being sheltered, slopes to the north, has a very poor soil and not over dry subsoil, and yet here the Golden Pippin grows as freely as any other variety; much better, in fact, than many new ones. We had occasion to move one the other day to fill up a blank; and certainly (as the men who lifted it told us) it was growing like a Willow, with a clean glossy bark, which always indicates good health; and it would be difficult to point out healthier trees in the orchard. We are only relating a solitary case as regards this variety, not knowing of any old trees in this neighbourhood, where it is but little known; but we see no reason why

* Canker in the stems of young Apple trees is frequently met with; and no doubt often originates from the careless way in which the stems are pruned up to form a standard; in trimming off the lateral shoots, the operator cuts into the *quick* or alburnum, which causes a slight wound; and in those varieties predisposed to canker, it is sure to follow, and ultimately ruins the tree. Instead of cutting the side shoots of trees intended for standards close in at the winter pruning, it is better to cut them back to within an eye of the stem; the shoots produced from the eyes left should be stopped back the following Midsummer to two or three joints each. These shoots will strengthen and increase the size of the stem by increasing the growing action along its surface, and save in many instances the use of stakes to keep the stems upright. The second year, these spurs should be all or partly removed, cutting them tolerably close to but never below the bark of the stem. The tendency to produce wounds and canker would thus be avoided, and stronger stems obtained in a given time; but they would not look so clean and saleable as the nurserymen now produce them, and which we fear has led to the practice.

our Golden Pippins should not progress onward, as they have hitherto done. At all events, from the evidence already adduced, and which we doubt not will be strengthened as we proceed with our inquiry, we shall be justified in asking our readers to pause before they adopt such wide generalisations, and discard from their orchards all the fruits, &c., which the author of the review in question cites as being "worn out and irrecoverable." With all deference to the opinions expressed in the review, we consider the range of observation far too limited for us to accept the author's conclusions, even had we no evidence to the contrary to offer.

(To be continued.)

HORTICULTURAL SOCIETY.

FEB. 3.—Rev. L. Vernon Harcourt in the chair. Twenty-five new members were elected on this occasion; a satisfactory proof of the evident interest taken in the Society, and the excellency of the new arrangements by which it seeks to re-establish itself. The exhibition itself, considering the unfavourable weather under which it was held, was all that could be desired. There was a large attendance of Fellows and their friends, and among the subjects furnished for their inspection were some of unusual interest. From the Society's garden came *Eugenia Ugni*, various *Epacris*es and *Conifers*, among which was the true Californian *Cupressus M'Nabiana*, a hardy kind, introduced by Jeffrey. It was stated to be identical with *C. glandulosa*, so named on account of its having a prominent gland on the back of the leaves; it may also be useful to know that *C. Goveniana* is sometimes sold for this plant, which is one of considerable value. Mr. Standish, of Bagshot, sent an example of the double-flowered *Camellia reticulata*—a variety which the Chinese were known to possess, but which has never before been introduced to this country. This new variety was sent to Bagshot some years since by Mr. Fortune from the north of China. He bought it from a Chinaman under the representation that it was a double *reticulata*, which has proved to be the case. It entirely resembles *reticulata* in leaf; the flower is a vivid crimson and quite double, and the plant is said to much better grower than even that gigantic kind; a bloom on a strong plant about three weeks since was reported to measure $5\frac{3}{4}$ inches across, and to be perfectly double; but the one on the specimen shown was not so large, as it was on a small side branch. When planted out, however, and a strong plant, Mr. Standish had no doubt that it would grow and produce blooms of enormous size. It must therefore be regarded as a great acquisition. Mr. Roser, gardener to J. Bradbury, Esq., sent a very fine specimen of *Erica mutabilis*. A seedling *Heliotrope* was contributed by Mr. Dunsford, of Chingford, and a variegated *Verbena* came from Mr. Turner, of East Barnet. Mr. Cutbush, of Highgate, sent a dozen fine forced *Hyacinths*.

A young stem of the Rice paper plant (*Aralia papyrifera*) cut in the Island of Formosa by Mr. Fortune (who has lately returned from China,

well and hearty, and whom we were glad to see in the room) was exhibited by that gentleman. He stated that there is now no doubt that Formosa yields the greater part of the Rice paper of commerce. This beautiful substance is largely consumed in the Canton and Fokien provinces. In the city of Foo-Chou-foo, every lady wears artificial flowers made from it. It is estimated that this place alone consumes about 30,000 dollars worth of it annually! The cheapness of this article in the market shows that it must be very abundant in its place of growth. One hundred sheets, each about three inches square, can be bought for the small sum of three halfpence. One almost wonders, Mr. F. remarked, that it is not more sought after by workers in artificial flowers in Europe. Rice paper is the pith of the plant, cut into thin sheets by the Chinese.

A most beautiful bunch of fruit of *Musa Cavendishi* was exhibited by Mr. Young, gardener to W. Stone, Esq., of Dulwich. It weighed 16 lbs., and what is seldom met with in bunches of this fruit, the whole of the pods were quite ripe; although heavier bunches have been exhibited, it was mentioned that none in every way so perfect as this had ever been brought under the notice of the Society.

Mr. Williams, gardener to Mr. Fairie, of Liverpool, the gentleman who first flowered the beautiful *Rhododendron Hookeri*, figured in a former number, furnished a collection of cut flowers, in which were *Lælia superbiens*, cut from the noble plant purchased at the Horticultural Society's sale of Orchids; the best variety of *Calanthe vestita*, *Cœlogyne cristata*, Camellias, Early Tulips, and the old-fashioned *Diosma ovata*, a Cape plant, from which the Hottentots extract a perfume held by them in great esteem; but which to Europeans would be considered anything but agreeable.

Of fruit there were some admirable exhibitions. Mr. Jones, of Dowlais, sent a noble Black Prince Pine Apple, weighing 6 lbs. 10 oz.; Mr. South, gardener to A. H. Davenport, Esq., had another fruit of the same kind weighing 4 lbs. 13 oz.; and Mr. Ingram, of the Royal Gardens, Frogmore, sent an exceedingly handsome smooth leaved Cayenne Pine, weighing 6 lbs. 12 oz. The last named gentleman also furnished a dish of new West's St. Peter's Grapes, beautiful specimens for this early season of the year; these were really new Grapes, although we see the fact doubted in the columns of a contemporary. Grapes from Mr. Fleming, gardener to the Duke of Sutherland, at Trentham, consisted of White Tokay, plump and beautiful; Muscat of Alexandria, fine bunches just beginning to shrivel and having that rich golden yellow colour which is so desirable to find in this variety; and Black Barbarossa, very fine, though not so large, they say, as it has sometimes been grown. Such a varied and beautiful collection of Grapes, it was remarked, could only be produced at this time of year from such princely gardens as those from which they were furnished. Mr. Hill, gardener to R. Sneyd, Esq., exhibited a boxful of very excellent Muscat Grapes. Mr. Tillyard, gardener to the Right Hon. the Speaker at Heckfield, sent a collection of fruit, consisting of a nicely ripened Queen Pine Apple, Black Hamburgh Grapes, excellent for fruit of that kind at this time of year; and Winter Nelis, Ne Plus Meuris, Easter Beurré, Glou Morceau, and Knight's Monarch Pears, all specimens of which

any gardener might well be proud. Fine as these were, however, they were not near so large or showy as some fruit of foreign growth shown by Mr. Lewis Solomon, of Covent Garden. The latter consisted of Easter Beurré, apparently quite ripe; Beurré Rance, Belle Auvergne, St. Germain, Catillac, and Bon Chrétien Pears; and the White Calville and Reinette du Canada Apples. These were specimens which, for size and beauty, it would be difficult to surpass. Mr. Solomon also sent a collection of foreign vegetables, consisting of large white Asparagus and what is termed Sprue, Artichokes, and French Beans, together with an excellent salad, in which were Lettuces, Endive, and Barbe du Capucin, all of which have been largely imported to Covent Garden Market during the last two months. From Mr. Tegg, gardener to Arthur Pryor, Esq., came very good Ash-leaved Kidney Potatoes and Asparagus; and Mr. Ingram, gardener to J. J. Blandy, Esq., of Reading, sent some very nice forced Rhubarb, Seakale, and Mushrooms. Mr. Judd, gardener to Earl Spencer, produced examples of Brussels Sprouts, to prove that this vegetable can be had as fine from home grown seed as from that imported from Belgium. The specimens shown, which were in every way excellent, were stated to have been raised from seed, which (or rather the stock of it) had been in Mr. Judd's possession for 16 years. He had had it, he said, from his father, who had grown the same sample for more years than he had done, a fact which he considered calculated to set the matter so long disputed at rest, that no good Brussels Sprouts could be grown except from Belgian seed. That from which the specimens shown were raised, he added, was saved in 1849; it was therefore seven years old, a proof that good seeds do not lose their vitality so soon as many believe them to do.

Attention was directed by the Vice-Secretary to drawings of *Maxillaria venusta*, *Selenipedium Schlimi*, a Lady's Slipper-like plant, and *Odontoglossum phalænopsis*, three new Orchids which have lately been brought into notice in Belgium, and which for singularity of form and brilliancy and beauty of colours, may well vie with any of that favourite class now in cultivation.

Dr. Lindley also briefly described Boucherie's process of charging timber of inferior quality with substances which rendered it equal to Oak.

FRUIT CULTURE.—No. II.

BY MR. POWELL, ROYAL GARDENS, FROGMORE.

(Continued from page 42.)

THE propagation of fruit trees by grafting is of ancient date; the invention was well known and practised by the Greeks and Romans, who were acquainted with a variety of modes. Indeed, in all civilised countries, it has long been adopted, and none perhaps are more clever in the art than the French, who not only apply it to fruit trees and shrubs, but also to soft-wooded plants.

Most all our fruit trees are increased either by *grafting* or *budding*,

which is the operation of inserting the bud or graft of one tree into the stem or branch of another, in such a way as the two may unite, and, through the influence of vegetation, form a new compound. Most all trees and shrubs may be increased in this way; still it is confined within certain limits, and does not follow that a graft from one tree will grow on every other, but must be of close affinity and belong to the same family, so that there is a similarity of structure between the stock and graft; and the nearer the relationship, the more complete will be the union. Still it is possible to unite one tree with another, not of the same genus, such as the Apple on the Willow, and the Pear on the Thorn; or as the ancients used to boast, to graft Apples on Poplars. No good result can reasonably be expected from such unions, and as far as my own experience goes in these matters, I have invariably found the graft to die after growing a year or so. De Candolle, in writing on the subject, says, "If the descending sap has only an incomplete analogy with the wants of the stock, the latter does not thrive, though the organic union may have taken place; and if the analogy between the alburnum of stock and scion is wanting, the organic union does not operate; the scion cannot absorb the sap of the stock, and the graft fails."

This leads us to the choice of stocks that are most suitable for working our different kinds of fruit trees on. They are classed in two divisions, viz., the *dwarfing* and *free* stock. The former is a tree of diminutive habit and slow growth, of the same species, or belonging to the same family as the graft. The object in using this description of stock is to lessen the expansive power of the trees, so that they may be suitable for pot culture, low walls, or bush trees and pyramids for small gardens. The *Quince*, raised either by seed or layers, is the stock used for dwarfing the Pear, but every variety will not thrive on the *Quince*, and in general very short-lived.

The *paradise stock* and layers or cuttings of the *creeper* Apple are among the best for dwarfing the Apple; the *Bullace* for the Plum, and the Mahaleb stock (*Prunus Mahaleb*) is mostly used for the Cherry.

Free stocks are seedlings of the same kind as the graft, and will naturally grow to the same size as the tree from whence the scions are taken; this doubtless is the best stock for the Apple, Pear, and Plum for general cultivation, more especially for orchards, high walls, and large gardens.

As the Peach is a native of Persia and China, it is naturally too delicate on its own root to thrive in our cold damp climate, or it will do well on the Almond stock, except in very dry soil or under glass; therefore it is worked on the common Plum or Muscle, on which it grows freely; it is also very hardy, and will accommodate itself to any soil, provided it be well drained. Thus by working on the Plum, together with the assistance of walls, we are enabled to overcome the disadvantage of an unfavourable climate, and obtain beautiful fruit in abundance.

Grafting is a method adopted for the rapid increase of certain varieties of fruit trees that are not easily propagated in any other way, for altering or renewing the heads of those that are old or worthless, and to render certain foreign or tender kinds more robust by grafting on native stocks. There are many different ways of performing the

operation ; indeed it may be diversified to a great extent, and it is not of much importance what method is adopted so long as the inner bark, both of the stock and scion, are in contact, so that the sap may pass freely from one to the other ; therefore it will be useless to notice many modes, and only those that are of practical utility to the fruit grower will be enumerated.

Tongue or whip grafting, Fig. 2, is the most common and the best way of working stocks when they are from half to an inch in diameter

having chosen a proper place, where the bark is smooth, as the point for the graft, which ought to be about six inches from the ground, with a very sharp knife cut it off in a sloping direction, then make a smooth sloping cut upwards about two inches in length, as at A ; at B make a slit near the top of the cut, and take out a small wedge shaped piece of wood ; select the scion C, which ought to be of the previous year's growth and not more than six inches long, or having three or four buds ; next make a sloping cut at the lower end of scion (D) the same length as that on the stock, and make the tongue upwards (E) to correspond with the cleft in the stock, and fit it accurately, so that the *inner barks* exactly meets on one side if not on the other. The graft is then bound firmly on with bast-matting, without changing its position, and cover the junction with prepared clay or wax, and the operation is complete. As soon as the union has taken place, and the graft is beginning to send forth shoots, the clay may be removed and the bandage loosened.

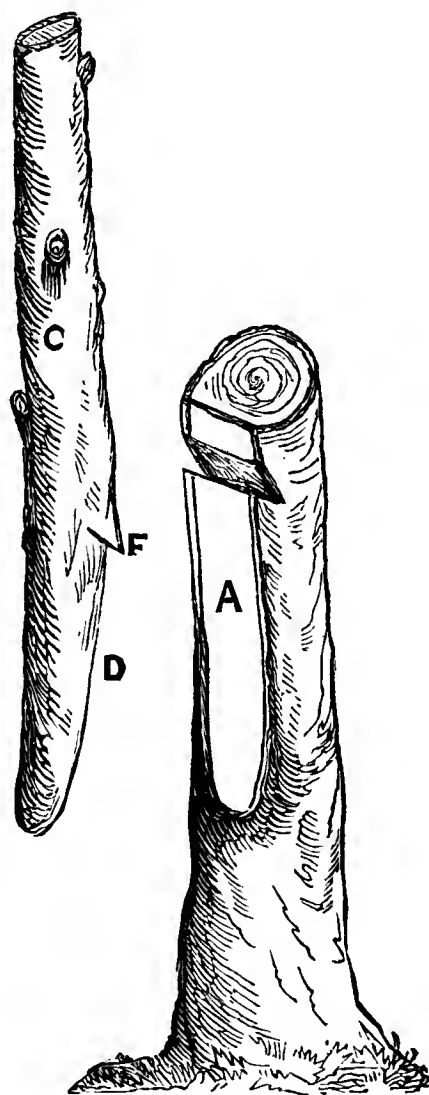


FIG 2.

Splice grafting, Fig. 3, is a very simple and certain mode ; if the scion corresponds with the size of the stock, the union will be very complete. It is only necessary to make two cuts, one upwards on the stock in a sloping direction (A) and downwards on the scion (B) a little over an inch in length, and fit them nicely ; then bind them together with bast-matting and cover with clay the same as tongue-grafting. This mode may also be applied with great advantage (when stocks are scarce), in grafting the roots of fruit trees, Fig. 4. The roots can be collected at the time fruit trees are transplanted, or at the time of root pruning ; any small piece of a few inches in length and the same size as the graft, will answer the purpose. The *root* (C) is grafted in the same way as Fig. 3, but no *clay* is required, it is merely bedded firmly in the soil, taking care to cover the place of junction, only allowing the top of the scion to be above the soil, as shown by the dotted line D. Trees grafted in this way are very healthy and produce fine fruits.

Crown or rind grafting, Fig. 5, is the most useful in a fruit garden, as it affords the means of renewing or altering the heads of old or worthless trees, as well as the advantage of growing early and late sorts on the same tree, which will extend the fruit season when the size of the garden will not admit of many trees being grown.

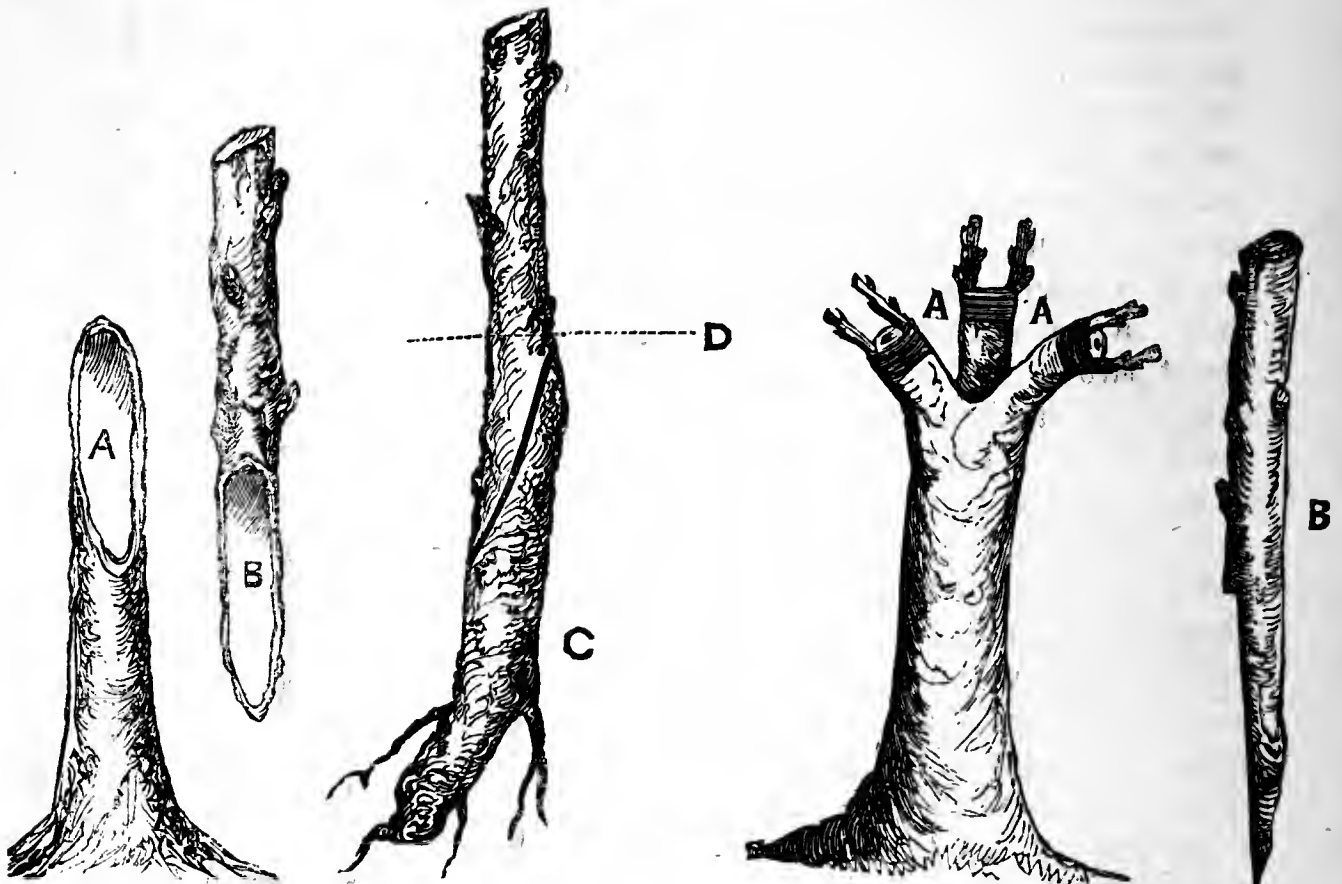


FIG. 3.

FIG. 5.

The tree intended to be grafted may be either worked over its main stem, or on the branches as shown at A; the stem or branch is cut off horizontally and pared smooth, then with a small thin piece of wood raise the rind at the spot where the scion is to be placed, pushing it gently down between the rind and wood; withdraw it and insert the scion, cut with a shoulder and sloped off to the end as at B, bind the graft with strong bast, and place a thick coating of clay over the whole. This method of grafting should be performed about the end of April, when the bark will rise without difficulty to receive the scion. Other modes of grafting are effected throughout March and April, beginning with the Cherry and Plum, and finishing with the Apple and Pear.

In preparing clay for grafting, add a fourth part horse-dung, and well beat it together. This should be done some time before use.

(To be continued).

GOSSIP.

WE understand the Septennial Meeting of the Horticultural Society of Belgium will take place on the 1st of March, on which occasion there will be a grand exposition of plants, &c. These meetings are attended

by all the great continental nurserymen, amateurs, and gardeners, who hold *conversazioni*, and dine together under the presidency of the King. We are not aware who will represent the English trade besides Mr. Glendinning, who we hear is one of the jurors.

Our readers will be glad to know that Mr. M'Ewen, formerly gardener to the Duke of Norfolk, at Arundel Castle, and more recently to — Beaumont, Esq., Bretton Hall, Yorkshire, has been appointed garden superintendent at Chiswick.

We see by an advertisement in our present number, that the Bath Hanoverian Band Committee have named Wednesday, May 13th, for holding their first Horticultural Exhibition at Sydney Gardens, in that city. The celebrity of these exhibitions is now well known, and great praise is due to the Committee for having brought the Horticulture of Bath and its neighbourhood to so high a degree of perfection by their exertions.

PLANTS FOR MASSING.

As amateurs are frequently asking for the best kinds of flower-garden plants for massing, or for planting entire beds, we present our readers with the following selection, furnished us by Mr. Foggo, as being the kinds used in the extensive flower gardens at Shrubland Park, and where the best varieties in each class are carefully selected. The general requisites for plants adapted for grouping are, 1st, dwarf compact habit and good foliage; 2d, decided colours, that will bear rain and a bright sun without fading; 3rd, that will produce a succession of bloom from June or July to November, or later.

<i>Verbenas—Scarlet</i>	. . . .	Mrs. Woodroffe, Defiance, Eblouisante, Englefield Scarlet, King of Scarlets, Louis Napoleon, Rougieri.
„ <i>Crimson</i>	. . . .	Rendalleri, Tommy, Géant des Batailles.
„ <i>Purple and Violet</i>	. . . .	Purple King, Andre, Emma, Palladium, Favourite, Madame Adolphe Weick, Matchless, Tyrian Prince.
„ <i>Lilac and Lavender</i>	. . . .	Haidee, Duchesse d'Aumale, Iphigenia, Nelly, Mrs. Mills, Parfume Madeline, Variiegata.
„ <i>Rose and Pink</i>	. . . .	Loveliness, Cardinal Wiseman.
„ <i>White</i>	. . . .	Mrs. Halford, White Perfection.
<i>Calceolarias—Yellow</i>	. . . .	Fleming's Yellow, Shrubland Yellow, Sulphurea splendens, Amplexicaulis (pale yellow).
„ <i>Orange</i>	. . . .	Prince of Orange, Shrubland Orange, Orange Boven (new).
„ <i>Bronze, Brown, & Yellow</i>	. . . .	Albira (new).
„ <i>Crimson</i>	. . . .	King of Sardinia, Sultan.
<i>Petunias—Purple</i>	. . . .	Translucens.
„ <i>Rose</i>	. . . .	Shrubland Rose, Countess of Ellesmere.
„ <i>White</i>	. . . .	Shrubland White.
„ <i>Striped and Variegated</i>	. . . .	Dr. Andre, Marquise de St. Innocent, Prothé, Hermione.
<i>Horse-shoe Geraniums—Scarlet</i>	. . . .	Prince of Wales, Wightman's Seedling, King of Nepal, Shrubland Queen, Globe, Compactum, Punch.

<i>Horse-shoe Geraniums—Cerise and Orange Scarlet.</i>	}	Cerise Unique, Commander-in-Chief, Cherry Cheek, Frosti, General Pelissier.
„ <i>Pink and Rose.</i>		Lady Middleton, La Titian, Judy
„ <i>White and Blush.</i>		Hendersoni, Boulede Niege, Blushing Bride, Miss Emily Field.
<i>Geraniums—Variegated-leaved</i>	.	Flower of the Day, Alma, St. Clair, Golden Chain, Lady Plymouth, Mangles' Variegated, and Scarlet and Lilac Variegated, Mountain of Light, Baron Hugel.
„ <i>Nosegay-flowered</i>	.	Pink Nosegay, Salmon ditto, Frewer's ditto, Madame Vernon, Fleming's Scarlet (very fine).
„ <i>Miscellaneous</i>	.	Purple Unique, Lady Mary Fox, Sir Wm. Middleton, Duchess of Sutherland, Queen of Roses, Sidonia, Diadematum erubescens, D. monstrosum, D. regium, D. speciosa.
„ <i>Ivy-leaved</i>	.	White, Etoile du Vaise, Scarlet, Pink.
<i>Dahlias</i>	.	Crystal Palace (scarlet), Crystal Palace (purple), Titian (dwarf yellow), Cleopatra (yellow), Zelinda (purple), Fleming's New Zelinda (white).
<i>Heliotropes</i>	.	Voltaireanum, Peruvianum, Corymbosum.
<i>Lobelia—Dwarf kinds</i>	.	Speciosa, Ramosoides, Oculata, and annual varieties.
„ <i>Tall ditto</i>	.	Cardinalis, and many scarlet hybrids.
<i>Delphiniums</i>	.	Blue Chinese, Hendersoni, Formosum, cardiopetalum.
<i>Salvias</i>	.	Patens, Dr. White, Fulgens.
<i>Pentstemons</i>	.	Coccineum, Album.
<i>Phloxes</i>	.	Omniflora alba, herbaceous kinds mixed in masses.
<i>Senecios</i>	.	Light and dark purple.
<i>Pansies</i>	.	Purple and Yellow for bands and edgings, mixed for borders.
<i>Enotheras</i>	.	Macrocarpa, Prostrata, Riparia.
<i>Nasturtiums</i>	.	From seed, in masses.

In addition, the following are employed:—*Neirembergia gracilis*, *Lantana corymbosa* and *delicatissima*, *Gazania uniflora*, *Gaillardia coronata nana*, *Cuphea platycentra*, *Bouvardia triphylla*, *Anagallis cærulea* and *grandiflora*, *Ageratum mexicanum*, *Agapanthus umbellatus*, *Humea elegans*, and a great number of annuals.

For variegated beds and edgings, variegated *Geraniums*, *Lady Plymouth*, *Flower of the Day*, *Alma*, *St. Clair*, *Manglesi*, *Baron Hugel*, *Mountain of Light*, *Variegated Alyssum*, and *Variegated Mint*.

FERNS AND AQUATICS FOR SITTING ROOMS.

AQUARIUMS are in high fashion just now. Some of your readers may be glad to know the names of such aquatics as will thrive in a limited space, and in the temperature of an ordinary sitting-room. Those marked hardy will endure frost, and are suitable for apartments in which there are no fires.

In my parlour there are ten or a dozen tall glass jars with covers, such as the confectioners use for barley-sugar, &c. The water remains

without change clean and sweet, and the plants are in perfect health. Fishes have been introduced into some of the jars, and are very lively. Gold and silver fish do better than any British varieties which I have yet experimented on. My friend, the late Mr. Yarrell, kept minnows (the same) for many years;—he had two glass jars—one ready clean and filled with fresh water, into which the minnows were removed from the jar in which they had been a fortnight, periodically every fourteen days—the change was made and experience proved such proceeding needful.

NAMES OF PLANTS.

1. Anacharis alsinastrum.
2. Callitriche autumnalis (Water Star-wort).
3. Stratiotes aloides (Water Soldier).
4. Hippuris vulgaris (Mare's-tail).
26. Ranunculus sceleratus.
(*The above are quite hardy.*)
5. Valisneria spiralis
7. Aponogeton distachyon } Sitting-room or greenhouse heat.
8. Pontedera crassipes }
6. Pistia stratiotes (African Duck-weed).
6 and 8 float on the water, and need not be planted in soil (merely placed on the water); 6 requires a little warmth, about 60 deg. Fahr., to thrive in.
9. Drynaria phymatodes.
10. Nephrodium molle.
11. Adiantum cuneatum.
12. Pteris longifolia.
13. Blechnum occidentale.
14. Woodwardia radicans.
15. Nephrolepis tuberosa.
16. Cheilanthes repens.
17. Pteris arguta.
18. Asplenium bulbiferum.
19. Pteris serrulata.
20. Doodia caudata.
21. Adiantum Capillus Veneris.
The above Ferns will thrive in the warmth of a sitting-room, taking care that they are not made too damp. The same treatment will also suit the Lycopodiums.
22. *Lycopodium stoloniferum.
23. „ formosum.
24. „ densum.
25. „ variabile.

Bath.

C. E.

BRITISH POMOLOGICAL SOCIETY.

FEBRUARY 5.—Robert Hogg, Esq., in the chair. J. R. Nearne, Esq., and Mr. J. Fraser, Lea Bridge Road, were elected members. The Assistant Secretary reported that since the last meeting the Botanical Society had ceased to have power to sublet the use of these (20, Bedford Street) rooms to the Pomological Society, but that the landlord had offered them a continuance, in direct tenancy, at the increased rent of £20 per annum. He further reported that he had made some inquiries on the

* Properly Selaginella.

subject, and had ascertained that a much larger room could be obtained at St. Martin's Hall, and every facility afforded, at a certain charge per meeting, with a reduction on a large number of meetings, and which would come much cheaper to the society than their present rent. A committee, composed of Messrs. Hogg, Taylor, and Edwards, was appointed to inquire into the matter, and decide as they might consider most expedient. The Assistant Secretary reported a communication from Mr. Powell, of Frogmore, in reply to inquiries he had been instructed to make as to whence the grafts had been procured of the Bonne de Malines Pear which he exhibited at last meeting. Mr. Powell stated that the grafts were first sent to Frogmore by Lord Waterpark, from Doveridge Hall; that he had met with the same Pear at Arundel Castle and Cumberland Lodge, under the name of Nelis d'Hiver as well as under Bonne de Malines. He had also seen it in the large collections exhibited by continental growers at the Horticultural Society's rooms, and that sometimes it was fit for use in October, and scarcely to be distinguished in flavour from the Nelis d'Hiver.

Mr. Rivers recognised, from the description, the variety Mr. Powell had exhibited, and mentioned that he had received the same variety twelve years ago from Major Esperen; he had never found it ripen at Sawbridgeworth, the fruit always remaining hard. The Council of the Society will be glad to receive, next autumn, from different parts of the country, fruits of the varieties grown under the two names, that the matter may be cleared up, and that it may be ascertained in what districts the variety exhibited as Bonne de Malines ripens well. Attention is also called to this matter as an example of a large number of cases of doubtful or confused nomenclature, and the Council will be glad if members generally will bring such subjects before the society.

Fruit exhibited for Examination at this Meeting.—Grapes, by Mr. Thomas, gardener at Melton Constable in Norfolk, as an example of retarded Black Hamburgh. The berries were well coloured and plump; the foot-stalks healthy, green, and full of sap. They were pronounced in excellent condition, and such as would be creditable to any gardener in August.

Fruit for Examination.—Apples: By Messrs. Garaway and Mayes, Bristol, a specimen (two years old) of the Easter Pippin (or French Crab), which they had received from Dr. Graves, Brigown Glebe, near Mitchelstown, Ireland, and of the same kind as a specimen forwarded by the latter gentleman to the November meeting, when the above name had been pronounced the correct one. It was now sent for further examination, having been by some pronounced the Yorkshire Greening. It was satisfactorily ascertained that the correct name had been given to the fruit at the November meeting. By Mr. William Cox, Madesfield Court, near Worcester: Specimens of the Rick Apple, a variety extensively grown in that district for cider, and esteemed also as a culinary fruit, as it keeps well till June, is hardy, and a good bearer. Specimens of an unnamed kind (which appeared to be the Saint Sauveur), reported to be an enormous bearer, very hardy, and a good culinary fruit, keeping well till June or July. It was esteemed a first-class variety. Mr. Cox offered to send grafts for distribution, and as

several members expressed a desire to have some, he has been communicated with, and requested to send a package for the purpose by the 28th instant; members desiring to participate therein will oblige by communicating with the Assistant Secretary before that day. This will be a good opportunity for members to distribute to different parts of the country scions of any little known local varieties which they may think worthy of being brought into notice.

CALENDAR FOR THE MONTH.

Auriculas.—These plants have now made considerable growth, and will require increased attention both in watering and giving air. With the young growth aphides will also appear, which must not be allowed to get ahead. If frost returns they will require careful protection at night, even more than during winter, the plants then being dormant.

Azaleas.—Lose no time in getting the young plants potted. Give strong healthy plants liberal shifts. If there are any thrips on them a most effectual way of getting rid of them is, previous to potting them, to dip them in weak tobacco-water, and then letting them dry before potting; a great many small plants are soon done in this manner, and they will keep clear of thrips for a long time, unless they are placed near or among plants that are infested. This plan is not so practicable with large specimen plants; for these recourse must be had to fumigating with tobacco. Large plants will now require liberal supplies of water; they should also have plenty of air when the state of the weather permits.

Camellias.—Any pot-bound plants that are done flowering may now be shifted; they should be kept warm and be syringed daily. Water freely plants in flower, and give them plenty of air, but guard against cold currents of air.

Carnations and Picotees.—The sooner these are potted for blooming the better; the end of the month will be sufficiently early for planting in beds or borders. It is unnecessary to describe the soil these plants prefer, or to detail the proper method of potting to ensure success; this has been so often done in previous volumes of the *Florist*. It is enough here to remind our readers that this is the proper time for the operation.

Cinerarias.—The principal work has been done as regards the growth of the plant; the time has arrived for blooming. The earlier they flower the brighter the colours appear. Encourage the growth of late plants by giving them weak liquid manure.

Cold Frames.—The inmates of these will now, under the influence of bright solar light and heat, begin to grow. Look carefully over them and cut away all dead foliage, shoots, &c., and thoroughly clean them, surfacing with a little fresh soil such plants as may require it, and shifting such as need it. Give all the air possible to all well-established plants. Attend carefully to the watering, and cover up at night.

Conservatory and Show-house.—Remove all plants as soon as the flowers begin to fade; let not a single dead leaf or flower be seen, so that they may not lessen the display of floral grandeur which these

should now exhibit. Much attention is required in giving air, as they should be ventilated freely in fine weather, but cold currents of air should be avoided. Liberal supplies of water will now be necessary. Camellias, Acacias, and other strong growing plants that are growing in borders, will require to be well supplied with water; a little weak liquid manure occasionally will do them good. Use no more fire-heat than is necessary; a temperature of about 46° by night, with a rise of about 12° or 14° by day, will answer admirably.

Cucumbers.—Give plants in bearing a good dose of liquid manure two or three times a week. Pick off all the fruit and blossoms that are not wanted; by this means the plants will better swell out those that are left. Attend to the stopping, thinning, and tying of the shoots; when this is regularly done they will not get displaced by syringing; which should now be done daily to keep down insects. As the progress of invention has not as yet banished dung beds from all gardens, when the plants that are intended for these are ready, prepare a good bed for them. Cucumbers are much more tender when grown this way than they are when grown on trellises in houses, as they require great attention to keep up a regular bottom heat, also in giving air, watering, earthing up, covering, &c. Sow for successional crops.

Dahlias.—Now is the time for the general propagation, this being the last month for putting in cuttings, which now strike readily in a little bottom heat. Towards the end of the month sow seed.

Flower Garden.—Give all the attention possible to the stock of “bedding plants,” so that there may be no scarcity when planting out time comes. All cuttings in store pans should be potted off; they should then be kept rather close for a few days, but as soon as they begin to root they should be gradually hardened by being freely exposed to the atmosphere when the weather is favourable. Prune and tie climbers of all kinds. Prune Roses. Look over herbaceous plants; divide and fill up vacancies. Protect choice plants liable to injury from frosts or cold winds. Push forward alterations not yet completed. Walks generally require some attention at this season to keep them neat; merely sweeping and rolling will be sufficient for some, while others will require turning or fresh gravelling.

Forcing Hardy Shrubs.—Continue to introduce fresh plants as you have room for them; always place them at the end of the house, where they can have a rather low temperature at first, and plenty of air. Water freely, and syringe mornings and afternoons. Though nothing can scarcely be more beautiful than some of the fine kinds of Rhododendrons, Azaleas, and Kalmias, when in bloom, still variety is always pleasing—Rhodoras, Weigelas, Deutzias, Lilacs, Thorns, Almonds, &c., are all beautiful when forced.

Forcing Ground.—Potatoes in pits should have plenty of air and be freely watered while in a growing state, but they must be rather dry as they approach maturity; plant some more to come in before those out of doors. The early kinds of Rhubarb now only require pots to be placed over them. Seakale and Asparagus need, however, a little heat. Sow French Beans twice or thrice during the month; attend to the earthing-up and watering of the earlier batches; syringe them occa-

sionally to keep down insects, but do it very gently, as they are easily broken down unless they are supported in some way—if on shelves a string or two the length will support them; if on stages or platforms, two or three bits of branches off the ends of Beech stuck round the pots will support them. Sow Mustard and Cress to meet the demand.

Fruit (Hardy)—The almost general failure of the fruit crop last season will cause many people to use every endeavour to secure a crop this season. Such visitations are not altogether unproductive of good; they awaken man from his lethargy, and cause him to exercise those thinking faculties with which an All-wise Providence has blessed him. We recommend those who wish to secure good crops of wall-fruit to lose no time in protecting their trees. We do not advise a careless or indiscriminate mode of protection. Whatever material or means may be employed they should be removable at pleasure, and should not be kept on during the day-time unless in snow storms, or cutting winds and severe frosty weather. If the weather be mild when the trees are coming into blossom, we strongly advise the thinning of the blooms.

Greenhouse (Hard-wooded Plants).—Proceed with the potting of these at every opportunity. This is a good time for a re-arrangement in the house, but do not on any account crowd them. After they are potted they should stand for a few days before they are watered, which should then be done thoroughly; they should have rather less air for a few days, and should be syringed two or three times a week if the weather be fine. Guard against cold currents of easterly winds, and avoid having fire-heat if possible. The night temperature should not exceed 45° in fine weather, nor more than 40° during cold frosty nights. Give a little air in good time in the morning, and shut up early in the afternoons. Specimen plants will require constant attention. Plants intended to be grown for specimens should have the flowers picked off, and will require stopping, tying-out, &c. *Soft-wooded Plants*.—These will require a nice genial atmosphere. Shift before the roots get matted. Plants intended to be grown as large specimens will require liberal shifts and constant attention in stopping and tying-out. Look out for green-fly and fumigate with tobacco as soon as you observe any.

Kitchen Garden.—This is an important time for the kitchen gardener, and every moment of it should be turned to good account. If the draining, trenching, and ridging of the ground has been properly attended to in the autumn, it will now be in a beautiful mellow state, most favourable for the reception of seeds. When the ground is at all wet no seed-sowing should be attempted; but when dry not a moment should be lost in getting them in. Get in the principal crop of Onions the first week if the ground be in a dry state, also the principal crop of Parsnips. All vegetable crops should if possible be sown in drills, as they are generally finer when grown in this way, when properly thinned and hoed. Sow Asparagus on well prepared land. Sow Early Horn Carrots on a warm border, also early Dutch Turnips. Sow Broad Beans and Peas of sorts twice during the month. Sow a good breadth of Parsley; sow Spinach, Radishes, and Leeks. Sow Cauliflowers and Lettuce of sorts. Sow some Beet towards the end of the month, but

the principal crop had better be deferred until next month. Sow the main crop of Brussels Sprouts, Savoy, and Borecole, if not done last month. Plant out Cabbage, and fill up vacancies in the autumn-planted ones. Plant Cauliflowers and Lettuces on warm borders, out of frames. Plant Jerusalem and Globe Artichokes, also Rhubarb, Sea-kale, Asparagus, and Horse-radish. All the early crop of Potatoes should be got in as soon as possible. Protect carefully in frosty weather. Pay attention to order and neatness in all your operations.

Melons.—Plant out the early plants on a good bottom; the soil should be of a good loamy nature. Sow seed of the choicest kinds.

Pansies.—Secure any of the long branches by pegging them down, and remove all dead foliage.

Peach-forcing.—See directions in last month's Calendar.

Pelargoniums.—The May plants will have been finally tied out, and will now assume their proper shape for the exhibitions. Encourage their growth with *weak* liquid manure, and keep the house comfortably warm, giving plenty of air at the same time. June and July plants will still have much growth to make, and will require close attention and care. For small plants—those for the home stage only—the same treatment will be required as regards temperature, watering, and general management, but the plants may stand nearer to each other than those intended for exhibitions, with but very little tying. All must, however, be carefully fumigated if green-fly appear.

Pinery.—Plants that are swelling their fruit, and those that are "showing," will require liberal supplies of water. Except whilst in bloom (when it should be kept rather dry), the atmosphere after this time can scarcely be kept too moist. Maintain a good bottom heat.

Pinks.—If not already done, give the surface of the beds a good stirring, allowing it to dry and sweeten afterwards. This being done, top dress with rotten manure and rich soil mixed in equal parts.

Pleasure Ground.—All newly planted trees should be well secured against strong winds, which do them serious injury if they are not protected. Roll lawns frequently when the ground is not frozen; this makes it much better to mow, either with the scythe or machine. Sweep and roll walks.

Roses.—All the summer and strong-growing Perpetuals should now be pruned without delay, but the more delicate varieties it is advisable to leave for the present—say till about the end of the month—for fear frost may yet nip the terminal bud and compel a second going over. In pots, where showing bloom, liberal doses of liquid manure will be very beneficial. Green-fly and maggots are of course well looked after.

Stove.—With the increase of solar heat and light the temperature of this house should be 60° at night and 70° by day, fire-heat, and be allowed to increase 12° or 14° by sun heat. As the plants advance in growth they will require more watering. Keep up a moist growing atmosphere. Give air freely in fine weather. Pot such plants as may require it. Ixoras, Allamandas, and similar plants will now demand attention. Start Gloriosas, Gloxinias, Achimenes, and Gesneras.

Tulips.—From this time care must be taken to protect in bad weather; either frost, snow, or wet in excess will be equally injurious.



J. Andrews Del. & Sculp.

*Bouvardia
oriana (Parsons)*

Plate 125.

Printed by C. Thoburn

BOUVARDIA ORIANA.

(PLATE 125.)

THE genus *Bouvardia*, though known to British gardens for near a century, has only within these last few years received the attention it deserves; for although *B. splendens*, *triphylla*, and one or two others have been favourites with a few, yet in the greater number of gardens they have been, and still are, comparatively unknown; and it may appear somewhat strange that the beautiful *B. longiflora*, introduced to this country so far back as 1827, should until very recently be almost unknown. The public are indebted to the Messrs. Henderson, of the Wellington Nursery, for bringing this lovely plant into notice, and it must be gratifying to them to know what a universal favourite it is becoming; and as its merits become better known it will doubtless be still more esteemed. With most cultivators *B. longiflora* has been treated as a rather hardy stove plant; but the Messrs. Hendersons inform us they have no doubt it will thrive better out of doors during summer. Last season a weakly plant was transferred from a pot to an open border in their nursery, and by the autumn it had become a much stronger plant than any they had in pots. We have likewise the authority of Mr. Pince, of Exeter, for stating, that it grows and blooms very freely in the open ground of his nursery, and he is not without the hope that it may even stand the winter in a manner similar to the old *B. triphylla*. We may therefore look upon this species as being nearly if not quite as hardy as the bright scarlet varieties.

It may easily be imagined that a genus possessing so many valuable properties as are combined in the *Bouvardias* would attract the attention of the hybridist. And a plant from the first batch of hybrids that we have heard of being raised in this country is figured in our plate in the preceding page, and will give an idea of their value as ornamental plants. The entire stock of these valuable varieties is in the hands of Messrs. E. G. Henderson & Son, who have published the following particulars respecting them. "Mr. Parsons, of Brighton, obtained these hybrids from two of the finest species, viz., *B. longiflora* and *leianthe*; the former, a pure white, is well known as one of the most chaste and elegant of flowers—the latter a brilliant scarlet, and one of the best of its class, producing in abundance large trusses of flowers when planted in the flower garden, whilst it is equally attractive if cultivated as a pot plant, as it blooms continuously through the autumn and winter months. The seedlings possess all the advantages of the last-named variety, are of free growth and robust habit, with large and ample foliage, and are of

easy culture. The flowers partake of the character of *B. longiflora* in having large sepals. They are of different shades of colour, from flesh to bright Indian red, with large truss or corymb consisting of thirty or more flowers, not unlike those of an *Ixora*. One other feature that will render these flowers very useful and desirable for bouquets is the time they will keep when cut and placed in water. They appear as firm after ten days as when first cut, and still retain their brilliant and unique colour."

In our opinion Bouvardias are destined to occupy a prominent position, as well for the autumn and winter decoration of the conservatory as for the summer display in the flower garden. For the latter purpose they are propagated by cuttings at the latter part of August, and wintered and otherwise treated in a similar manner to *Heliotropiums*, *Verbenas*, &c. For in-door decoration they require attention during the early part of the season, to obtain strong, compact bushes, by potting into larger pots as the plants progress, and by stopping the stronger growths, &c. Another method to insure strong healthy specimens is, to plant in a spare border, exposed to the sun, in good turfy loam and peat, young plants about the last week in May. Their growth must be regulated by stopping, as in pot culture, and they should be watered occasionally during hot weather. In August or early in September, after being well soaked with water, the plants should be lifted carefully and transferred to flower pots, using a compost as above, with the addition of a small quantity of sand; this done, they should be placed in a shaded situation until they have commenced to root into the fresh soil; when that is the case they must be inured to light, and by the end of September should be removed to the greenhouse, where they will continue to furnish a succession of bloom throughout the winter.

HINTS ON LANDSCAPE GARDENING.—No. II.

THE change which took place about this time, in reference to the principle of laying out grounds, was productive of a great amount of injury to many fine places, which, denuded of their avenues and magnificent hedges, through adopting the new style, wore a bald and deserted appearance for years after. We are informed of this by the perusal of an old manuscript, written by a gentleman of taste at the time. The style of planting which was substituted in place of the French (or Dutch) swept away, had neither then, nor for years afterwards, any settled principles to guide the designer, and beyond the writings of Pope and Addison, who both unquestionably possessed a true conception of the beautiful in landscape scenery, and who described in their writings what it should consist of, I doubt whether those whose

places were altered to the new order of things were at all equal to the due appreciation of pure English landscape.

There was, in fact, at this period an outcry against the French school, which had declined from the time of La Notré, or, rather, so many puerilities and absurdities had been introduced into its component parts, that it was fairly open to the keen shafts of ridicule directed against it by Pope, and to the less violent, but perhaps more persuasive, remonstrances of Addison. The public therefore condemned it without a hearing, and without the least regard to its many points of grandeur, and suitability to accompany a high order of architecture.

I am quite willing to confess that both Bridgeman and Kent, who were the first regular professors of the new school (though much overpraised at the time by the false taste of the day), had a genius for their work, and that, barring the difficulties inseparable from running from one extreme of style to another, laid down principles which even now we must admire. I am further willing to admit that Kent had perhaps a purer taste than any of his followers for true natural scenery, infinitely more so, I consider, than Brown. Yet with all this, when their ideas came into the hands of others to be carried out, the professors must either have given up an important principle of their art, have blindly introduced what was quite as inconsistent with the style adopted as they had so unmercifully swept away, for we find that temples to the heathen divinities, grottoes, alcoves, statues from the Greek mythology, and tablets inscribed with the most wretched poetry, were plentifully interwoven through scenery styled, *par excellence*, the natural! I should not condemn this so entirely (for I consider some parts of the above admissible in any style), except for the purpose of showing how utterly inconsistent it was with the doctrine its professors publicly taught; for, properly speaking, neither the one nor the other should have found a place in English scenery; and to imitate even that of classic Greece, was a fault fatal to the principles enunciated by the authors of the new style. The so-called natural style was, in fact, nothing more than nature-planting mixed up with an incongruous assemblage of subjects foreign to the true principles of taste, and in no way connected with natural scenery, which, I again repeat, was not thoroughly understood till the time of Whately and Gelpin, to whom belongs the credit of establishing the principles which govern the pure and beautiful in landscape gardening.

True, the modern school of the time I allude to introduced greater freedom and breadth into the component parts of scenery, and, unfettered by the rule and line which confined their predecessors, a wider scope and greater comprehensiveness was given to ornamental planting. It is also true that the formation and puerile conceits of the old style were abolished, that the dead wall was removed, and the ha-ha substituted (a decided improvement), yet it would still appear that either the professors of the new art themselves, or those who employed them, had a secret longing after the "old worship." They studied and introduced Nature into their works, yet they must needs mix up a little of the *past style* with it also. It was the imperfect taste of the day, and hence the incongruity I complain of, even in the best designs the

age produced. It led, however, to a better state of things in time, but the day was not yet come; it is a question even now whether we have reached it—the day of pure and refined taste in landscape composition.

I by no means implicate Kent in my condemnations: he was an artist of unquestioned ability. That he could at all times put his designs into practice is doubtful; on the contrary, that he was often compelled to sacrifice his own ideas to please others with less taste than himself is clear; it has always been so, and we find in later times that Repton feelingly alludes to the same fact.

M. A.

(To be continued.)

DO FRUIT TREES AND HYBRID RACES OF PLANTS DEGENERATE?

LEAVING the question of fruit trees for the present, we make another extract from the review quoted in our last article. In reference to florists' flowers, at page 338 of the *Scottish Gardener* for last year, the reviewer states—"Lastly, on this part of the subject, we may cite the testimony of florists' flowers in favour of the tendency to degenerate, which we are now affirming. Some thirty years ago an elaborate description of the Dahlias then in vogue was drawn up under the auspices of the late Mr. Sabine, and inserted in the 'Transactions' of the Horticultural Society. Can Dr. Lindley tell us how many of these are in existence now? Of course he will say that fashion and finer varieties have driven them off the field. * * * But we may put the question in a somewhat modified form, viz., how many of these Dahlias could have existed till now? The last time we saw the Springfield Rival, once the paragon of the quilled sorts, it was not worth looking at, and we suppose it extinct." It appears to us that the writer in penning the above was impressed with the idea that the florist's was a stationary art, instead of one slowly, but surely, progressive; the evidence in support of the theory that the Dahlias described in the "Transactions" of the Horticultural Society have died out is entirely negative. On the contrary, that they would have been just as good now as when first described, we have no doubt, had they been worth keeping in cultivation. The same may be said of the Chinese Chrysanthemum and spring Crocus, which were also the subjects of elaborate descriptions in the same work, and on looking over the earlier volumes of the "Transactions," where these are figured and described in such detail, and comparing them with varieties of the same genera in the present day, the triumph of the hybridiser stands out in bold relief, and we can well afford to make allowance for the care and expense incurred at the time on what may now appear to us worthless subjects, for this reason, that they inform us unmistakably how much has really been done, through hybridisation, by way of improving the races of flowers, of which the plates in the "Transactions" may be considered as starting points; albeit *they* were an improvement on others of a former day.

But we must return to the question raised by the reviewer,—“ How many of these Dahlias could have existed till now ? ” We cannot, of course, follow the history of the identical varieties alluded to, but we are old enough to remember them, and also that it was on those particular kinds that our own first attempts at hybridising were made, and we recollect how quickly improvements were perceptible in some of the seedlings, by a tendency to produce flowers more double in character, or with shorter petals ; and how gradually the florets of the disc became converted into petals, as was the case with the anemone-flowered kinds, and full double flowers was the result. An examination of the florists' catalogues for the last 20 years will show how slowly one improvement has followed another, and that when an advance was made in a flower of any particular colour, the rest in that class were thrown back a point, and in time ceased to be grown altogether, as the cumulative improvements in other flowers rendered them unworthy the florist's notice. “ Nature never advances by leaps,” said an eminent florist, the other day, in your pages ; and this is equally true of the Dahlia as of the Rose. Taking a flower of any particular colour, we find one year a seedling will produce bloom with the same colour, but perhaps with a shorter or more perfectly cupped petal, or the centre may be fuller and less confused ; by-and-bye the above qualities are still further improved on, and a more circular or even outline will be the result ; or the habit, uncertain in some varieties of always producing perfect blooms, will in time become constant in subsequently raised seedlings. It is thus, step by step, that improvements in all florists' flowers have been made, and which have led to the qualities which characterise florists' flowers of the present day. Nor is perfection even yet attained ; the progress with some races—as the Dahlia, to wit—may be slower and less evident than formerly, simply for the reason that it requires the combination of many “ properties ” now-a-days to constitute an improvement, so much excellence having already been attained. But let us look at other classes only on the threshold of improvement. Take, for instance, the Chinese Azalea, Cineraria, Achimenes, Bouvardia, Pompone Chrysanthemum, and numerous other families, and see how rapid has been the first progress ; and such will always be the case when operating on normal species, or those only removed a few degrees from them ; but when a certain number of properties have become permanently established in any given race of plants, the progress towards the ideal perfection sought after is slower than in its earlier stages of improvement. The plants, then, or rather (speaking of florists' flowers), the flowers do not get worse—that is, they do not degenerate, as the reviewer asserts, but they suffer by a comparison with rivals in advance of them, and possessing properties which are wanting in the older kinds. We have the word of Mr. Turner, of Slough, one of the *first* cultivators in the kingdom, that the Springfield Rival Dahlia, which the reviewer, as we have quoted, states “ was not worth looking at in its latter days,” was as good a florist's flower up to the last as when first sent out ; and the same excellent authority informs us, as elucidating the point at issue, “ that the Dahlia Sir Frederick Bathurst was so fine it was thought it

could never be beaten ; but it does not *appear* so perfect now, simply because Lord Bath is a great deal better in the same way ;” and adds, “in all my experience I do not know of any varieties of the plants* you name that have degenerated ; they are simply by degrees, and almost imperceptibly, surpassed with newer and better kinds.”

We consider the reviewer has established no proof that the Dahlia is degenerating ; we have *evidence* that the Springfield Rival was equally good at the last as when in its hey-day of popularity. We saw, ourselves, at the September exhibition at the Crystal Palace, the Essex Triumph, a very old dark Dahlia, in the principal winning stand. This Dahlia has kept its ground for so many years owing to its perfect centre—it, too, is now being superseded. But to say that for this reason it is degenerating is altogether a fallacy ; the constitutional vigour of the *plant* is unimpaired, it is simply *beaten* in the *properties* of its *bloom*.

It would be too much to suppose that among the many thousand hybrids which annually spring into existence a certain proportion of them may not have constitutions weaker than their parents, and may in consequence be shorter lived, and we further admit this proportion may increase as a course of artificial treatment and careless crossing is pursued ; but we cannot take such cases—purely incidental—as affording any evidence on which to base the theory of the degeneracy of races in plants.

(To be continued.)

PETUNIA IMPERIALIS.

SHOULD you think the following worthy of a place in your pages I will feel greatly obliged, for I have frequently heard this double white Petunia unfavourably spoken of. Some time ago a nurseryman's traveller called here and pronounced it useless. I told him I was of a different opinion, and pointed to a specimen of it four feet high and three feet wide, trained on a flat wire trellis, and covered with scores of beautiful double white flowers—no mean object in the front of a greenhouse ; and the attainment of this is a very easy matter.

About the middle of March I procured a small plant of Petunia imperialis from Messrs. Stuart & Mein, Kelso. It was put in a 4-inch pot, and placed in a Cucumber frame ; when it began to grow, I pinched off its top ; it soon pushed again, and when the side shoots were about three or four inches long, it was moved into the greenhouse, and soon after shifted into an 8-inch pot, and a few stakes put in to support the branches it had made, two of which were stopped, and the others allowed to go on. On the 1st of June I had it shifted into an 11-inch pot, and tied up to a trellis, and the flowers picked off. After this it grew rapidly, and the shoots were stopped several times and trained, so as to cover the trellis with branches that would flower. All this time it stood

* We were asking for information on this point, as to any observable degeneracy in the Dahlia, Carnation, Picotee, Pink, Tulip, and Pansy.

opposite an open sash, and got air in abundance night and day; when it had covered the trellis it was allowed to flower, which it did abundantly.

If it is grown for exhibition, I would here recommend that the pot in which it is grown be laid on its side for a few days previous to the day it is wanted, as the flowers will rise up from the foliage and have a nice effect when set up again.

The soil it was grown in was four parts light turfy loam, one part decayed leaves, and one part old cow-dung. After the last shift it got, and when well rooted, it was watered about once a fortnight with weak liquid manure.

Springwood Park.

GEORGE WEMYSS.

ON IMPROVING AND FORMING LAWNS.

A GREAT, if not the greatest, charm appended to country residences is the closeness and verdure of the turf belonging to the dressed grounds or lawns. In no other country is there anything to be compared with a well kept British lawn. This, no doubt, arises in a great measure from the natural humidity of our climate; besides which, more expense and care are bestowed on them, in having them frequently mowed and rolled and annually removing coarse grasses and weeds. With these appliances, and with the many natural advantages which the soil and climate of Britain present for the growth of the great family of Grasses, we need not be surprised that our lawns far eclipse anything so called on the Continent.

But, notwithstanding this, it is not always easy or possible to maintain Grass lawns up to the state of high keeping in which, above all things, it is desirable they should appear. Inattention to mowing them regularly and at short intervals, and weeding, will soon throw them out of order; the stronger growing Grasses will soon overgrow the weaker, ones and usurp their place; and various weeds will vegetate, get the upper hand, and destroy the Grass adjoining. On damp or very rich soils the above evils are increased, and in the autumn worms are troublesome by throwing up casts, which render the surface unsightly; while on very poor soils, or over-dry lawns, the turf is apt to burn during weather, and besides producing a class of weeds peculiar to the soil, the larva of a small species of *Melalontha* (the May-bug) causes much mischief in dry autumns by eating off the roots of the Grasses, which are pulled up wholesale by birds for the purpose of feeding on the grubs; bare patches with the turf destroyed are the consequence, and a most difficult affair it is to deal with them, so as to avoid the lawns having a mended or patchy appearance. Any of these defects produce a sensible detraction from the order and keeping of well managed grounds, and more particularly when the Grass accompanies flower-beds or parterres. It is therefore essential to have this department as near perfection as possible, seeing it so materially enhances the beauties of the whole, and makes the circle of enjoyment and continuity of thorough keeping complete.

I beg first to notice the improvement of existing lawns, as they are

generally capable of improvement with care and management. In the first place, if the ground is in the least damp, it must be well drained before anything else is attempted. Let the drains be sufficiently near each other to remove rain-water quickly, as well as springs in the under stratum. If pipes are used let there be 12 or 15 inches of broken stones placed over them to promote the quick passage of the surface water to the pipes, and in filling up ram or well tread the soil, that it should not settle down when the turf is relaid, and leave a hollow line over the drain. In the next place, carefully remove with their entire roots all the weeds and coarse Grasses. Plantains, Crowfoot, Dandelions, Thistles, wild Sorrel, one or two species of Scabiosa and Docks, are the weeds most frequently found in damp and rich soils, and even the common Daisy may be numerous enough to prove a nuisance in such situations. The common weed extractor is the best implement to take up the above with their roots, but for the Grasses an old oyster knife ground up to an edge is as good as anything, as their stoles will be mixed with the other Grasses, and will require care in taking out, so as not to injure those left and making patchy places. When the lawn is much infested some time will elapse before the whole of these pests are cleared; supposing a general weeding takes place in the spring before mowing the Grass, the whole should be gone over again immediately after each mowing, as at that time the weeds are more easily seen, and in a few days a second time, to remove any coarse Grasses which are left, as at that time they will have commenced growing again and may readily be seen by being taller than the proper lawn Grasses. By following up this plan for a month or two you will completely eradicate everything objectionable, and although the process is a tedious and expensive one, yet it must be borne in mind making a new lawn is a serious matter, involving considerable time and outlay, which by these means are avoided.

Wherever the Grass on the lawns after weeding appears thin, from the want of a closer bottom, it may be greatly improved by a top-dressing. The best season to effect this is in March or early in April. The object of a dressing will not be so much to promote a luxuriant growth as to encourage the Grasses and Clovers left to *tiller* or stole out, or in other words to get thick at the bottom. For ordinary soils use a mixture of powdered gypsum or old mortar beat to a dust, road-scrappings, coal or wood ashes, and a little soot, adding nitrate of soda after the rate of one cwt. per acre; in place of soot, guano or its substitutes may be added where the land is poor. The above should be well mixed with a bulk of fine dry earth, and spread regularly over the surface. I have named the above ingredients for a dressing as being within the reach of most people; but where such is not the case apply to a respectable dealer in artificial manures, stating the staple of your soil, and you will get a compost for the purpose, which must be mixed with earth, &c., as above. Gypsum, superphosphates, the salts of potash and soda, with a small quantity of guano, form the base of manures of this description, for improving the herbage of inferior pastures, and answer the same purpose for lawns. If it is considered, after all, that the lawn is deficient in the finer kinds of Grasses, a selection of Grass seeds

should be sown over it. The Crested Dog's-tail Grass, Red or Creeping Fescue Grass, Wood Meadow Grass, and Hard Fescue Grass, in about equal proportions, at the rate of $1\frac{1}{2}$ bushel per acre, adding at the rate of 5 lbs. each per acre of White Dutch Clover and Trefoil, will be the most suitable selection and quantity for ordinary soils; but in limestone districts, or on the chalk, Sheep's Fescue Grass, and *Festuca tenuifolia*, may be added in place of the Hard Fescue, as well as a little Sweet Vernal Grass. If this plan is adopted, it will be well to defer laying on the compost till the end of March or early in April, when it should follow the sowing: let the compost be well raked or swept among the roots, which will also bury the newly sown seed, afterwards let it be well rolled. When the lawn is mown the Grass should be raked off only, as sweeping it may disturb the germinating Grasses; and roll the ground after each mowing, to keep the surface even and fine. The young Grasses will soon be up, and in the course of a couple of months, if attention is paid to mowing every week or ten days, and eradicating every weed which may yet appear, the lawn will soon wear a different appearance, and form a close velvety turf.

The general mode of making new lawns is by turfing them at once, unless they are of great extent; but this can only be done with advantage when a supply of good turf can be obtained at a moderate cost, and in many places this proves one of the most costly items in improvements; and considering the uncertain nature of the greater part of turves, as ordinarily to be obtained, the most unsatisfactory. In some districts adjoining the downs, or near the limestone ranges of Wales, Cumberland, and Yorkshire, in a great part of Scotland and Ireland, near mountain ranges, fine turf may be obtained from the natural Grasses of those districts (composed in great part of Sheep's Fescue, with a few of the finer Poas), which form a sward of unequalled fineness, closeness of pile, and verdure. I have obtained, by carefully preparing the soil, a sward closely approaching the above; but in low situations, and especially in the vicinity of towns, it is difficult to keep it long in its normal state of freshness, and I am of opinion that in most cases it is more economical and satisfactory to sow down lawns than to turf them, as where seed is sown you can make your own selection, and according to the nature of the soil adopt such kinds of Grasses as experience teaches us will maintain themselves. Of course, where it is decided to sow, instead of turfing, the banks, panels, verges, and the outlines of beds and clumps, must be laid down in turf, as essential in forming correct lines, and afterwards preparing the breadths and intermediate portions carefully up to the proper levels for sowing.

To prepare the ground for forming a lawn, care must be taken, supposing any part of it has been disturbed, that such portions are properly consolidated by ramming, to prevent the unequal settlement which would otherwise follow. If the ground has been previously under cultivation or in pasture, the surface soil, roots, weeds, &c., should be stifle burned, in the manner pasture land is breast ploughed and burned. This will convert the vegetable remains into ashes, and destroy the seeds of weeds, &c., which always exist in the soil. The ashes are next to be spread over the surface, and the whole carefully

dug over (I am supposing the draining and levelling done, if necessary, and the proper surface adjusted and brought to a uniform state of firmness) and prepared for sowing. The five-tined fork is the best implement for breaking down soil to the requisite degree of fineness for Grass seeds. If the soil is stiff and heavy, now is the time for working in any material which will ameliorate this condition; a mixture of a lighter soil—coal ashes, road scrapings, drift, mortar rubbish—is useful and will suggest what is wanted; on the contrary, where the soil is poor and sandy, chalk or marl may be applied if procurable, or a mixture of any calcareous materials. Where the soil is of a peaty character, a good dressing of hot lime well mixed in during the forking over will have a good effect on the subsequent well-doing of the Grasses. Having been particular in producing a fine tilth to a uniform depth, and made the whole equally firm by treading, the surface should be brought to a fine even surface for the reception of the seed. My own favourite Grasses for lawns are the Crested Dog's-tail, Hard and Creeping Fescue, Wood Meadow Grass, Evergreen do., Common do., Sheep's Fescue, fine-leaved do., and Evergreen Rye Grass; but where a particularly fine sward is required, I have used only the Crested Dog's-tail Grass, fine-leaved Fescue, and Evergreen Wood Meadow Grass, in equal proportions, with 5 or 6 lbs. of *Trifolium repens*, and 4 lbs. of *T. minus* per acre; the proportion per acre, including Clovers, will be about 60 lbs. where a close bottom is wanted quickly, but in ordinary cases 50 lbs. are sufficient. I need not, however, enter further into this, as mixtures of the proper Grasses for lawns are to be obtained from any respectable seedsman, who I can affirm have paid great attention to this department of their business; and therefore the simplest way is merely to state the size of the ground and nature of the soil, and you may leave the selection in their hands. The seed should be very evenly sown, sowing the Grass seed and Clover separately, and lightly raked in. When the surface soil becomes dry, pass a roller over it to form the surface even for the scythe when the time comes for mowing. The seeds should be closely watched, or the birds will make free with the Clover and some other seeds. When the Grasses are two or three inches in height, mow them over with a very sharp scythe, merely raking off the Grass and roll directly afterwards. This mowing and rolling will require to be performed every ten days or a fortnight, taking care to disturb the surface soil as little as possible, as the roots have got only a slender hold on the soil and are easily pulled up and destroyed; and for this reason newly sown lawns (or even pastures) should never be fed off with sheep, as is sometimes recommended, as these animals destroy a number of the Grasses by pulling them out of the ground while feeding. By following up the mowing and rolling, and removing any weeds which from time to time appear, the lawn will present a very respectable appearance towards the end of the summer; and as the plants commence stoling out at bottom, a thick set sward will be produced by the following spring, which will gradually get better, till in about eighteen months from sowing it will not be distinguishable from the best old lawns, and will last, with but little trouble, for generations. Should it not come up to expectations through any inferiority of the soil, apply the second

year the top-dressing recommended for worn-out lawns, which will assist the surface roots and enable the plants to stole out and thicken at the bottom.

In some cases Moss (*Hypnum*) is considered an objectionable feature on lawns; for myself, I rarely wish to destroy it on lawns which have long been mown, and where the soil is poor Mosses will naturally take the place of those Grasses which have exhausted their supplies. In such cases a compost containing alkaline ingredients as potash and soda—in fact, the compost recommended above—will quickly destroy the Mosses; but the sward should first be examined, to see if there are any Grasses left to take their place, and if not better put up with the Moss than destroy it before you have a substitute. As a rule, the progress of Moss is slow, and it only by degrees usurps the place of the Grasses, when they can no longer hold their own; it can, therefore, be readily stopped in time, and should be watched. But Moss will be found in almost every lawn during winter, when its cheerful green colour is pleasing; and as it becomes dormant and partly dies away as the spring advances and the Grasses commence growing, I do not consider it unsightly within certain limits; while under trees and in shady places, a thick carpet of Moss is a most delightful substitute for Grasses, where the latter refuse to grow, and should, therefore, be encouraged.

Worms, which on damp soils are exceedingly annoying in the autumn by the number of casts they throw up to the surface, are best destroyed by applying lime-water with a watering pot to the ground. To make this, let a shovelful or two of hot lime be thrown into a tub of water, well stir the mixture, and when it becomes clear, water the ground with the liquid. It will quickly bring the worms to the surface, when they should be picked up. It will be necessary to repeat this application several times to completely get rid of them. March, April, and October are the best months for effecting this. I have hitherto failed in finding anything that would destroy the larvæ of the May bug, or small cockchafer; they appear to bear with impunity any application, however caustic, and the only remedy is to destroy the perfect insect when it appears in May, when it may be seen, in places where they abound, coming out of the ground on a sunny morning by hundreds. A few boys or women with a scrubby beesom or a flat board with a handle, will easily kill them as they make their appearance, and of course prevent them depositing any eggs, which they soon commence doing in a day or two after emerging from the soil. Shrubs, particularly Rose trees, &c., should likewise be examined for any which may have escaped and taken wing unobserved.

The above is a long article, but I hope that will not be an objection to its insertion in your pages.

RUSTICUS.

FARFUGIUM GRANDE.—At page 33 of our February number, a plant of this is stated, by mistake, to measure 12 feet 3 inches through; it should have been 2 feet 3 inches through.

EXHIBITION OF HYACINTHS, &c., AT EDINBURGH.

AN exhibition of Hyacinths on a very large scale took place at the Music Hall, Edinburgh, on Tuesday, March 10th, and was attended with the most complete and gratifying success. Never before, in our opinion, was such a display of Hyacinths brought together in Britain for competition, and to our horticultural friends of Edinburgh justly belongs the credit of this novel, but most successful, effort of showing what the Hyacinth really is when well managed. The very numerous specimens of well-grown Hyacinths call forth our highest commendations, and it is but justice to our northern friends to confess that in the culture of the Hyacinth they are certainly *quite up to the mark*, and that the southern growers may learn a lesson from them.

In the class for 18 Hyacinths, in pots, grown by nurserymen, six collections were staged. Messrs. James Dickson and Sons were first, with *Nimrod, single light porcelain blue, with fine close spike; Voltaire, single white; Emicus, single blue; *Miss Ainsworth, French white, shaded with blush, close spike: a fine variety; Orondates, single blue; Triomphe Blandina, single white; Charles Dickens, single blue; *Grandeur à Merveille, single pale blush, fine; *Grand Lilas, light porcelain blue, fine; Grand Vedette, single white; *Laurens Koster, double purplish blue, fine; *Alba superbissima, single white, very fine; Porcelain Sceptre, single light porcelain blue; *Norma, single pale flesh, with light rose stripes, very fine; *Prince Albert, single velvety black: the finest specimen of this sort we ever saw; *Lord Wellington, *double rose*, a most beautiful variety; Prince of Waterloo, double white; and Lord Wellington, *single pale rose, with deep rose stripe*. Messrs. Cutbush and Son, of Highgate, near London, were second, with *Mary Stuart, single white, very fine; Robert Steiger, single striped light red; Waterloo, double red, but not well coloured; Norma; *Baron Von Tuyll, dark single porcelain blue, fine; *Queen Victoria, deep blush, with deep pink stripes: a fine variety; *Nimrod; *Grandeur à Merveille; *Mrs. Beecher Stowe, very similar to Queen Victoria in colour, with fine close spike; *Cavaignac, single pale blush, with deep blush stripes, close spike, and a handsome variety; Bloksberg, double light blue; Tour d'Auvergne, double white; Porcelain Sceptre; Grand Lilas; *Solfaterre, single bright carmine, very fine; *La Joyeuse, single shaded light rose, very fine; *Circe, single shaded carmine and blush, fine; and *Lord Wellington, very fine. Mr. Charles Alexander, of West Register Street, was third, with some fine plants, among which Queen of the Netherlands, single white, a splendid variety, with large finely formed pips, and close spike; Garrick, double deep shaded porcelain blue; and Meerlandsch Gloire, single shaded rosy blush, a very fine variety: deserved especial notice. Mr. T. H. Douglas, nurseryman, Rosebank, was fourth, with some fine plants.

It will not be out of place here to make a few remarks on the collections exhibited. The judges had an arduous task to perform, as the collections were of rare merit, and did not admit of an immediate decision, as is often the case with other flowers, and they were a

considerable time in deciding which should be first. Messrs. Dickson and Sons gained a point in foliage. They were decidedly best in this respect, and in their collection was a *telling* specimen of Prince Albert. Their plants were also neatly dressed with green moss, the arrangement of which had a material influence on the position of the foliage, and by the aid of which the flowers were displayed to greater perfection than they were in Mr. Cutbush's collection. Mr. Cutbush's flowers were as fine, but had not such good foliage, and were not dressed with moss, and he also had greater variety; and in our opinion the judges would have done well to have placed the two collections *equal first*, and brought Mr. Alexander's fine collection *second*. The judges, after anxious deliberation, decided as they did by *a point* we believe, but there can be no doubt that in the mode of growing them Messrs. Dickson's collection had great advantages, strong stimulants having been used beyond the pots they were shown in, whilst Mr. Cutbush's plants had received none beyond that administered to them in the pots in which they were shown. We mention this merely in justice to Mr. Cutbush, and feel sure that that gentleman has learned a lesson which will be useful to him in future, and our Edinburgh friends may be proud that they have been able to teach so experienced a grower.

For 12 Hyacinths in pots, exhibited by practical gardeners or amateurs, the first prize was justly awarded to Mr. James Henderson, gardener to C. K. Sivewright, Esq., Cargilfield, near Edinburgh, for Lord Wellington, double blush; *Prince Albert, single black; Lord Grey, single rose; *Laurens Koster, double blue: a splendid specimen; *Nimrod, single blue, fine close spike; *Richardson, single French white, shaded with pale pink, large pip and spike, measuring eight inches in length by $9\frac{1}{2}$ inches in circumference: a fine variety; Lord Wellington, single rose; Monsieur de Faesch, single carmine; *Madame Hodson, single pale pink, with bright carmine stripe, fine; *Norma, very fine; *Grandeur à Merveille; and La Tour d'Auvergne, one of the best double whites. This collection exhibited good culture. The second prize was awarded to Mr. James Douglas, gardener to J. Russell, Esq., South Bank; 3rd, Mr. Allan Cameron, gardener to S. Hay, Esq., Trinity College.

For six Hyacinths in pots, open to all (the prize given by Messrs. Lawson and Sons), Mr. Henderson, gardener to C. K. Sivewright, Esq., again grasped the prize with exceedingly well grown plants. There were other classes for Hyacinths, but we are unable to devote sufficient space to a full report. Hyacinths in glasses were exhibited, but we think there is still room for improvement in the culture of these in this way, and have no doubt this will be effected in time. Among the Hyacinths, those marked * were particularly fine.

Camellias, both as plants in flower and in a cut state, were invited and exhibited, but did not indicate any high order of culture. It should be borne in mind, however, that they are exceedingly difficult plants to carry. We would suggest for next year prizes for the best six and four Camellias, the sizes of pots limited.

Cinerarias were also exhibited, and were very well grown, although not up to the mark in the dwarf growth that should characterise them;

it is early, however, in the season for very first-rate specimens. For the best three, Mr. Macfarlane, gardener, Barnton, was first, with Lablache, Optima (Hopwood's), one of the best and most distinct varieties grown; and Scottish Chieftain; Mr. Thomas Reid, Broomfield, second; and Mr. Archibald Walker, third. An extra prize was awarded to Mr. Macfarlane, for three fine plants not entered for competition in this class.

Prizes were offered for hand bouquets, which called forth a spirited competition. Mr. C. W. Buck, of Covent Garden, succeeded in winning the first prize, with a most tastefully arranged bouquet; and Mrs. Carstairs, Warriston, obtained the second prize, with a beautiful bouquet, nearly equal to Mr. Buck's, but not so artistically finished at the margin.

The large music hall, containing tabling 240 feet by 3 feet, was completely filled with plants contributed by various nurserymen and gentlemen's gardeners in and about Edinburgh, and from other parts of the country. Mr. Thomson, of Dalkeith Gardens, contributed a large group of superb specimens of ornamental stove and greenhouse plants, which filled a large additional centre table, and to which an extra prize was awarded. Mr. Laing, of Dysart, sent a plant in flower of the beautiful *Rhododendron Bianca*; Mr. Ritchie, a well grown and flowered specimen of *Azalea optima*; Mr. Gordon, Niddrie House, a basket of admirable mushrooms; Mr. Gavin, Hopetoun, a collection of Pine-apples; Mr. C. W. Buck, Covent Garden, a handsome bride's bouquet; Mr. Pender, of Moredun, a collection of specimen plants in flower that evinced skill as a plant cultivator; Mr. Lockhart, Arniston, a fine specimen of *Pultenæa subumbellata*. To all these extra prizes were awarded. A few other extra prizes were awarded, but we have selected the above awards as given to denote excellence in culture. Several extensive collections of seeds and plants were also exhibited by the various seedsmen; and one of the most interesting features of the exhibition was a patent apparatus for heating greenhouses, where gas can be applied, sent by H. Craigie, Esq., Falcon-hall; the best contrivance we have yet seen for this purpose, and where hot-water apparatus or flues do not exist. It is particularly applicable to the numerous small greenhouses to be found in London and large towns, and can be produced at a cost of about 12%. In our next number we shall describe it more fully. Our attention was also arrested by a display of Minton's ornamental flower-pots, made of mixed terra cotta and china, and beautifully coloured, some of them in gold, and all very ornamental, and of rustic and various other patterns.

The very great attendance of visitors, both day and night, must have been very gratifying to the management of the exhibition; and especial thanks are due to C. K. Sivewright, Esq., for his untiring energy in collecting together so many exhibitions—many from a great distance—and bringing the exhibition to such a successful issue. We trust that the day is not far distant when some special recognition of this gentleman's services in the cause of horticulture and floriculture will be made. Such a step is, we believe, contemplated, and shall have our cordial help.

At the dinner which followed the exhibition about 16% were collected

as a fund to start with for next year, and we shall be deceived if a brilliant display of Hyacinths and other flowers is not the result. In framing the schedule for next year, it would be well to state that Hyacinths in glasses should be grown in water *only*, as we noticed moss in some of the glasses, and other stimulants could easily be added to the moss. We would also suggest a class for early single Tulips—sorts such as Vermilion Brilliant, Yellow Prince, the Pottebakkers, and other varieties. We hope now to see an exhibition of Hyacinths become a familiarity in other large towns, and earnestly recommend such a step. A spacious room answers admirably for exhibiting them in, and a gas-light exhibition of them not only allows the working classes the opportunity of seeing them, but will gratify all by its beauty.

WHAT KIND OF FRUIT CROPS WILL THERE BE THIS SEASON ?

THE very general failure of the fruit crops last year will lead many persons to ask what kind of crops will there be this season. There are some persons who will say that this will in a great measure depend on the nature of the season whilst the trees are in blossom, and there are others who (whilst admitting the advantage of fine weather whilst the trees are in blossom) assert that the failure of the fruit crops arises very frequently from the bad management of the orchards. All my personal observations and experience lead me to believe the latter are right.

A certain way of ascertaining the soundness of any opinion is to keep it before the public; by this means, if right, it will ultimately triumph, and, if wrong, it will sooner or later be found out. For this reason, and also from a sense of the great importance of the subject, I am induced to call the attention of your readers to it just now at the beginning of the spring.

What kind of fruit crop will there be the coming season? This is a subject in which we are all more or less interested, and it is one deserving of the greatest consideration. Let us, therefore, take a glance at the past, to see if we can arrive at any conclusions by which we may answer this question. Do not, good reader, fear that I will compel you to journey a long way backwards with me. No, I will not ask you to go back to those times ere our springs became so “precarious.” I shall only take a glance at the last three years; the events of these will be fresh in the minds of all readers of the *Florist*.

Let us begin with 1854. Your readers will recollect that the fruit crops in the south of England were that year said to be “all but completely gone,” in consequence of our “precarious seasons and late spring frosts.” In the *Florist* of that year I ventured to say that this failure was owing more to the neglected state of our orchards than to late spring frosts, &c. I also said that when trees in a full bearing state were allowed to carry too heavy a crop they in general required a season of rest to store up sufficient matter for another crop. I also said

that our orchards were not properly attended to as to pruning, &c., and that when there was a very heavy crop of fruit one year there would be, as a natural consequence, a very light one the following season. To remedy this state of things, I insisted on the necessity of paying the greatest attention to the propagation, rearing, management, &c., in all stages, of the fruit trees. I particularly insisted on never, in any one season, allowing the trees to carry too heavy crops, but on the contrary rather to err in only having moderate ones. I said that when all these things were properly attended to, and hardy varieties of fruit trees suitable to the localities were selected, the result would be that in nine seasons out of ten there would be average crops of fruit. The last three years have, in a great measure, shown these views to be correct ones. In consequence of the rest the trees had (owing to the failure of the crops) in 1854, there was a most abundant crop of fruit in 1855, particularly Apples, Pears, and Plums.

But there are some persons who attribute the good crop of 1855 to the lateness of the season, and they say that the weather being dry whilst the blossoms were expanded the frost did no injury. I question if there be many gardeners who can recollect a colder time for the month of May than it was in 1855, from the 1st to the 22nd of that month. Well, most people were so pleased with their crops in 1855 that they could not for the world think of thinning them, and in consequence we had very light crops in 1856. But, mark! it was not the late spring frosts that destroyed the crops. No, we had very little frost, so of course it must be something else that destroyed the crops; and we are told it was the wet weather that did the mischief. To me it appeared absurd to expect anything like an average crop in 1856 after the, in general, very heavy crops of 1855. Oh! but a great authority in these matters tells us that a friend of his (an amateur, I presume), had thinned some of the fruit on some of his trees in 1855, and that he did not secure a crop in 1856 by this means. Now, if these trees had never before had any attention paid to thinning, &c., until 1855, I am not surprised to hear that they did not bear crops in 1856. As well might we expect that a person born and reared in ignorance and vice, if sent for twelve months to Pentonville after attaining manhood, should come out a virtuous and good character. Fruit trees are like men: if we wish them to bear good fruit in due season we must attend carefully to them from the beginning, by a proper selection of grafts, stocks, &c.; by proper disbudding, thinning of shoots, spurs, fruit, &c.,—in fact, by proper management in every respect; when all this is properly done we will not fail to get good fruit for our labour.

The autumn of 1856 was, in this part of the country, very unfavourable to the ripening of the wood; still, notwithstanding this drawback, I am sanguine enough to expect good crops of fruit the coming season, in consequence of the very general failure last year. As I am now writing about the fruit crops, I will mention a few facts, which will speak for themselves.

Notwithstanding the good crops of other fruit in 1855, Apricots were in general that year a very deficient crop in the West Riding of Yorkshire. Good samples were worth four shillings a score in any of the

markets. Notwithstanding the very general failure of other fruit last year, Apricots were a plentiful crop in the West Riding—so plentiful, in fact, that very great quantities could be purchased at eighteen-pence the score, of a sample like those, which, in 1855, were worth four shillings. I invite any fruit grower in the West Riding to deny these facts if he can.

Now, these facts confirm what I have so often said about fruit trees always bearing good crops of fruit after a season's rest. And here I would ask those who advocate "retarding" how it happens that Apricots should be a good crop last year, when other fruit was a complete failure, and particularly as the Apricot is one of the earliest of our fruit trees to come into blossom.

From the very general failure of the fruit crop last year, we may anticipate good crops this season. Should there be a similar failure to that of last year, then, indeed, should I think that our "precarious seasons and late spring frosts" had a great deal to do with the failure of the crops; but if, on the other hand, we have good average crops this season, I must still think the views I advanced are right.

Stourton.

M. SAUL.

FRUIT CULTURE.—No. III.

BY MR. POWELL, ROYAL GARDENS, FROGMORE.

(Continued from page 88.)

ALTHOUGH most of our fruit trees may be increased by budding, it is a mode of propagation not usually practised, except for those kinds that are not easily multiplied in any other way, such as the Peach and Apricot; it is, however, preferable to grafting for all the stone fruit.

The object in budding is the same as grafting, from which it does not differ in its effect. Every individual bud is capable of forming a new tree, either as a graft with a portion of wood, or as a bud with only a small part of the bark attached.

The operation of budding consists of removing a bud with a portion of the rind from the young shoot of one tree and inserting it under the bark of another, and is performed after midsummer, from the middle of July to the end of August, but the exact time must be regulated according to circumstances; the buds must be perfectly formed on the young wood and somewhat matured, and the bark its natural colour; and done at a time when the bark of both the stock and buds parts easily from the wood, otherwise success would be very uncertain. A shady or damp day should also be chosen for the operation. There are several forms of budding which it is not necessary to notice here, as the common shield budding (fig. 6) is best adapted to our climate, and will answer every purpose in the fruit garden. In the first place the operator should be provided with a proper knife that is made for the purpose, and is termed a budding knife; it is about four inches long and the blade is rounded on the edge; the handle is of bone and made thin at the end, similar to a paper knife, for the purpose of raising the bark.

of the stock to admit the bud. The stock (A) should be in no way stunted, therefore choose such as are of free and healthy growth;—select a smooth part on the shaded side, make a transverse incision in the bark, and from this incision make a slit downwards to the extent of an inch, as at B. Next a stick of buds (as it is termed) fig. 7, must be selected; choose a thrifty young shoot, and cut the leaves at the leaf-stalk, score the bud the desired form, as shown at D; then, with the finger and thumb, placing the thumb close to the bud, press it sideways, and the bud will slip from the shoot as at C, fig. 6. I find this way of shelling the buds for fruit-tree budding preferable to taking out the wood after the bud is cut, not being so liable to injure the heart of the bud, which if damaged in any way will not thrive.

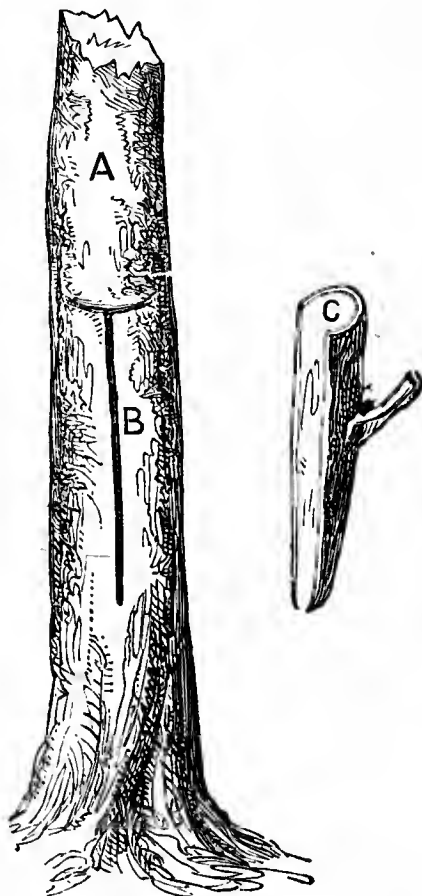


FIG 6.

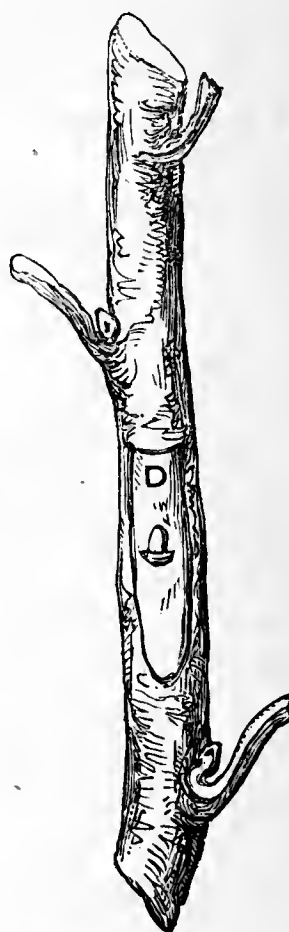


FIG. 7.

The bark is then carefully opened with the handle of the knife at B, fig. 6, to receive the bud C; insert it immediately. This is done by slipping it under the bark, making the top of the shield meet the transverse incision on the stock. A bandage of wet bass matting is now tied moderately tight over the wound, only leaving the bud and leaf-stalk exposed to the light. In about a month after the operation, the bud will have united: this can easily be known by the plumpness of the bud; the bandage then must be loosened. Nothing more is required till the following spring; when the buds begin to swell, the stock is headed down to within a few inches of the bud. The object in leaving this portion of the stock above the bud is to secure it from being broken by winds, and cause its upright growth by tying it to the stock. Towards autumn, when the shoot is strong, this portion of the stock may be cut

off close to the bud. Care should be taken not to allow any suckers or shoots from the stock to rob the bud.

Buds may be inserted with advantage in trained trees, either for the purpose of renewing or furnishing naked branches with fruitful shoots, as is often the case with Peaches and Nectarines. The bud is inserted on the upper side of the branch, and the bandage above the bud should be tied more tightly than below, which will have a tendency to check the upward flow of sap, and greatly assist the union of the bud. If the wound is exposed to the sun, as in the case of wall-trees, a slight shading is necessary for a few days after the operation.

The propagation of fruit trees by cuttings is the common mode of multiplying the Gooseberry, Currant, Fig, and Vine, all of which will root readily in the open ground. It consists in detaching a shoot of the previous season's growth from the parent tree, and when placed in the ground in a favourable situation it has the power of forming roots and becomes a new and entire tree.

The proper time for propagating hardy fruit trees is the autumn. As soon as the trees have shed their foliage, select cuttings of Gooseberries and Currants moderately strong, avoiding suckers that are thrown up from the root, as they are liable again to throw up suckers when formed into a tree. The cuttings should be from a foot to fifteen inches in length. Make a clean cut immediately below the bottom bud, leave the bottom eye (A), and cut out all the rest with the exception of two or three at the top; thus the cuttings are prepared for planting, see fig. 8. Select a sandy moist soil and a shady situation; bed them thickly in rows, and place the cuttings two-thirds of their length in the soil, up to the dotted line B, pressing the earth firmly round the bottom of the cutting.

The advantage of placing the cutting so deep in the soil is that it does not suffer from drought while "calusing;" and the moisture in the soil will keep the cuttings in a condition to supply the buds with food till they have made young fibres to draw nourishment from the earth. The following autumn the young plants should be taken up carefully; shorten the young shoots to within two buds, and prune the roots from the stem, leaving only those at the base, and plant them again in the nursery bed, merely covering the roots. This will give the tree about ten inches of stem, which will keep the fruit clean and have a neat appearance.

Figs and Vines are propagated in the open air, in precisely the same way as the Currant; but the best mode for Vines is by eyes, when artificial heat can be obtained. Select in February well-ripened wood of one season's growth, cut the eyes with about an inch and a-half of wood, the bud being in the centre; place them horizontally in a pot filled with light sandy soil, press them down (bud upwards) a little below



FIG. 8.

the surface. When they are rooted, pot them in small pots, and shift them during their summer's growth as they may require it. Propagating the Vine in this way requires artificial heat during their growth.

(To be continued.)

ERRATUM.—At page 86, for “Prunus Mahaleb” read “Cerasus Mahaleb.”

NOTES ON THE MONTH.

THE latter part of February was hazy, but favourable for out-door work, and rather remarkable for the absence of rain in any quantity, which greatly facilitated out-door operations; and March commenced with clearer weather, and sharp frosty nights during the first week, succeeded by mild but dull weather, the second. From the 12th to the 16th we had frequent storms of hail and snow, with cold boisterous winds from the north-west and north-east. Latterly, the weather has been warmer, but dull, with slight drizzly rains occasionally. Taken altogether, the average of temperature for the last month has been a couple of degrees below the standard for the season; but still very favourable for the garden and field work. In the latter, a vast breadth of spring corn is already committed to the soil in capital condition; and there is every prospect, from the appearance of the growing crops and the breadth sown, or in a state of preparation for seed, that not only a large acreage increase of corn will be sown for the harvest of '57, but from the state in which it will be got in, we should say it argues well for an abundant return. In the garden and allotment ground, the same activity prevails, stimulated, no doubt, by the open weather, “An' the main bit o' work in hand,” as a fine old friend told me the other night, as I caught him digging up his potato plot by moonlight; “for,” said he “tis much if all on't be got through wi', so I be doin' a leetle o' neets.” The demand, in fact, for labouring hands has been good for several years, owing to better systems of cultivation, and the large amount of draining done every winter.

Fruit tree bloom is not over forward, and we are rather pleased to see the weather cloudy and dull on this account, as it will not bring Peaches and Apricots too forward—say Pears too. One or two sunny days, however, will get them into a full blow, and as there may yet be frosts, which judging from the experience of past seasons is very likely, I should advise the stock of Beech boughs, Netting, Tiffany, just as people's pockets or fancy dictates, to be duly prepared for an emergency, (for of course nobody has covered their trees yet we should suppose) and when the wind gets in the north, with a clear sky, summon all hands and apply your *protective*, but NOT before.

Great preparations we hear are being made for the forthcoming horticultural campaign. In addition to the monster shows at the Crystal Palace, and the Regent's Park Exhibitions, I see dear old Chiswick is on her legs again, and advertising for a two days' grand exhibition in June, wooing her old admirers to a second love. Well, we hope she may succeed, and that the cloud she has been under so

long will clear away and admit the sunshine of prosperity to visit her again. We have seen nothing elsewhere to equal the aristocratic assemblages which used to grace the Chiswick Gardens, and gave a princely tone to the fête days, not since equalled, and we are glad, therefore, to hear of their revival under the new *regime*, and also that the Society is gaining ground in the estimation of the public. Let us hope it may not only become once more a place of fashionable resort, but an institution of practical utility—a much better position—though we are fully sensible how much the former might conduce to assist in carrying out the latter.

G. F.

HORTICULTURAL SOCIETY.

As we warmly advocated the retention of the Society's Gardens at Chiswick at a time when they were all but doomed, it is the more gratifying to us now to inform our readers that a start in earnest has been commenced towards a reformation of that establishment. Our readers have been apprised that the superintendence of the gardens is placed in the hands of Mr. M'Ewen, a gentleman well known to the horticultural world; and from what we know of his talent and previous perseverance, we doubt not that he will carry out the reformations necessary for placing this department on a footing of practical utility. Several improvements in the grounds have already, we hear, been commenced, and the public may expect to see considerable alterations effected, even by the time of the grand exhibition which takes place early in June. But where so much has to be done, time, and that to a considerable extent, will be required to complete the many changes under contemplation by the executive.

We think we may confidently assert that the Society has seen its worst days, and that in a very short time it will be in a sound and healthy position. It is gratifying to see how large an accession of new Fellows takes place each day of election, including a number of practical men who have hitherto kept aloof. We name this as a proof that the reduction of the annual subscription from four guineas to two guineas has been practically a benefit to the Society, and that increased confidence is felt by nurserymen and gardeners in its management. We look forward to a large increase of new members, to a complete renovation of much in the garden, and ultimately to its becoming an exponent of horticultural skill and practice worthy of the country. We say again, every gentleman owning a garden should encourage this establishment by becoming a F.H.S.

At the last ordinary meeting of the above Society, held on the 3rd ult., eleven new Fellows were elected, and H. Behrens, Esq., of Travemünde, was added by the Council to the list of Honorary Members, in consideration of his having subscribed the handsome sum of £100 towards the fund for maintaining the garden at Chiswick. Of Pine-apples some good fruit was exhibited, and there were some very

fine Strawberries, and new Black Hamburgh Grapes, the latter from Mr. Fleming, of Trentham. Vegetables, both foreign and English, were shown from the Royal Gardens, Frogmore, and from Covent Garden market. Hyacinths in pots came from Mr. Cutbush, of Highgate, who furnished finely-flowered plants of sorts whose names will be found in our report of the Edinburgh show in another page. Messrs. Veitch sent some finely-bloomed Camellias, consisting of *Saccoi nova* *alias* *Augustina superba*, a showy salmon pink kind, and also the better known light kind called Countess of Orkney. Some other Camellias were also shown, including a poor thing from N. H. Nugent, Esq. This was, however, not sent for its beauty, but to show a peculiar arrangement of its petals, which were so placed as to give the blooms a hexangular shape; this was, however, very incomplete. Hexangular Camellia flowers, we need not say, are not unfrequently met with in China, but whether they are natural or artificial is not, we believe, clearly ascertained.

Of new plants, Messrs. E. G. Henderson sent *Monochætum ensiferum*, a little greenhouse bush, from the high lying districts of Columbia. It has good sized pink flowers, which are produced in sufficient quantity to be tolerably showy, and even after the petals drop they leave behind them bunches of scarlet stamens, which still keep up a considerable amount of gaiety. Cut flower-spikes of *Thunbergia laurifolia* came from Messrs. Veitch. It is a stove climber with large showy blue blossoms, which when seen in the shape of long festoons from the rafters of a stove must be magnificent. A specimen of this plant was shown by Mr. Ingram, of Frogmore, a year or two ago. Of Cyclamens a magnificent specimen of *persicum* was shown by Mr. Ingram, gardener to J. J. Blandy, Esq., of Reading. Smaller plants of these showy spring flowers also came from Messrs. E. G. Henderson. Mr. Edmonds sent from Chiswick House six noble specimens of double white Chinese Primulas. Among other plants produced, those most deserving of notice were the Jasmine-flowered Rhododendron, the brilliant *Correa cardinalis*, and the shaggy Lady's Slipper. These are all good things of their kind.

Among miscellaneous subjects was a case of skeleton leaves and seed vessels, from J. Hawes, Esq., of Adelphi Terrace. Among them were Quaking Grass and Fern leaves, the latter especially "well done;" all of them were, however, extremely beautiful. A picture-frame representing a *Convolvulus* twining round a branch, carved in Pear-tree wood, was shown by Mr. Perry, of 38, North Audley-street; it enclosed a water-colour drawing by Van Huysum. Along with it were also daguerreotype representations of two celebrated wood carvings by the same eminent artist.

Mr. Robinson, of Thames Bank, Pimlico, exhibited a model of a rising plant stage, on which plants may be lifted up close to the glass and lowered at pleasure; this is effected by means of weights and pulleys, applied in the following manner. In small houses the stage is made to move up and down merely like a common window sash; but in the case of larger stages, a capstan placed under the stage is employed in order to increase the amount of moving power. The plan promises

to answer well; its working is extremely simple and efficacious, and the mechanical power is so strong that it can be made to overcome almost any amount of weight, and the advantages attending such a system are indisputable. The plan only requires to be made known to ensure its adoption in every garden where good plant culture is a desideratum. It is comparatively inexpensive, and may be readily applied not only in new houses but also in old ones.

The chairman announced that the Fellows elected at this meeting, and those who may be elected on the 7th inst., will be at once admitted to all privileges upon their payment of the subscription from May 1, 1857, to May 1, 1858.

THE WARS OF THE ROSES.

No. II.

THE florist is a gentle, genial man; for he who loves flowers loves peace. Floriculture *emollit mores*, and a gardener with black eyes is scarce. The hands that deck the earth with her jewels, and vest the land in glory, are inexpert to spar: they do no hurt to living thing except the earwig and the aphis. Even when we do quarrel, we florists, (and "we are the sons of women, Master Page,") we but fling rose-leaves at each other, and wage a battle of bon-bons, as though at a Roman carnival. "Madame Laffay," it is true, spoke not long ago in the *Chronicle* of calling in her "*beau sabreur*," but so good humouredly withal, that I think were the dear old lady to produce him, we should behold nothing more formidable than a gay young gardener with a pruning-knife. At the worst, and if actually swords were drawn, we should only contend, I am sure, as combatants upon the stage, harmoniously to music, and sup together when the curtain fell, in most convivial cheerfulness. And long may the Wars of the Roses thus maintain their original character, and continue to be Civil Wars.

The gentle spirit of the florist feels more earnestly this fond desire for peace, should sound or sign of actual warfare startle its accustomed calm. Did we not lean in sad surprise upon our spades and listen, when, after trumpet-tones, the voice of the herald reached us on the wind:—"Know all men by these presents that the brave Knight of Bromley defieth unto mortal strife all men who shall profanely dare to maintain that the aged lady of his love is not of all the most beautiful."* And did we not tremble with admiring awe, as we saw the great chief of Cheshunt ride boldly forth, the champion of youth and beauty, and spur down fast and furious to the fray?

To speak in more modern phrase, we Rose growers have been called upon to our great astonishment, (Mr. Cobden could scarcely be more astonished, were he to receive a challenge from the convalescent Bright to fight in a twenty-four foot ring) have been summoned to attend a mill for the championship—a mill in which (to quote the elegant

* See *Gardeners' Chronicle*, for November 22, 1856, and subsequent correspondence.

language of *Bell*,) “both men have napped it severely.” Who has won the victory? That is the question, and I will try to answer it.

In the first place, I see no object in instituting a comparison, as “A. R., of Bromley” has done, between old and new Roses. Not to mention the impossibility of making an exact distinction between them; for who is to say *when* a Rose becomes *old*? We do not care about age, but excellence. When we buy wine, we ask the vintage, and when we buy a horse, we look at its teeth; but when we buy a Rose we can dispense with antecedents, because it answers all questions *in propria persona*.

But granting the contrast to be desirable, it is not ably made by “A. R., of Bromley.” He says that “the old Roses are the best yet,” (*Gardeners’ Chronicle*, No. 47, 1856), and then mentions twelve, three of which—Prince Leon, Triomphe de Paris, and William Griffiths—are quite of recent introduction. I find the trio still spoken of as “new” Roses in catalogues of 1854-5.

Apart from this, the old Roses are not “the best yet.” Roses, like other flowers, are gradually progressing in symmetry and beauty, and every year brings us improvements. It makes one smile to recollect the pans of twenty-four, which used to win not many years ago; when *Las Casas*, with an eye like a Cyclops, was esteemed a noble Rose, and many others were admired, which were they to be now exhibited among the new ones, would look about as handsome as Mrs. Gamp’s umbrella among the pretty parasols we shall soon see at Chiswick and the Regent’s Park. Of the nine old Roses, mentioned by “A. R.,” one only, in my opinion, is perfect in every respect, and that is *Coupe d’Hébé*. It would be tedious to discuss the others individually; but we may dismiss the lot with that powerful *argumentum ad hominem* (especially when that *hominem* is an Englishman)—would “A. R.” like to exhibit them against nine of the new ones, for a ten-pound note?

I think, therefore, that florally speaking, Mr. Paul gains an easy and complete victory. Controversially, “A. R.” has hit him hard; and I cannot but fancy, in spite of the clever rejoinder which has been made, that when Mr. Paul was invited (in the *Gardeners’ Chronicle* for December 20, 1856) to “look upon that picture and on this,” he must have felt that he somewhat resembled the “engineer hoist with his own petard,” and that he had “heated a furnace for his foes so hot, that he had singed himself.” Descriptions of the Rose must be positive and not “comparative.” A young lady is not a belle, because she has sisters plainer than herself; and if Miss Aimée Vibert were to call herself “magnificent, large and full,” because she grew near that pocket Venus, Miss Banksia, we should feel painfully compelled to cut her.

But generally speaking, I think that Mr. Paul and our other principal Rose growers have been treated with little generosity or gratitude as regards their catalogues. In the first place, and with reference to new Roses, it seems that a *Pelargonium* may be introduced at two guineas, subside to as many shillings, and possibly become extinct, without a word of discontent being uttered; but if a Rose grower charge three half-crowns for a Rose which probably he has fetched from France, and this prove inferior—not justifying his first hopes and impressions—

immediately we have (to use a noble Oriental phrase) "a bobbery in the bazaar." Where there is zeal, there must be some speculation; especially when the buyer is so far from his market; and the importer but too often falls "a victim to misplaced confidence." We amateurs ought to commiserate rather than to condemn on these occasions, for the disappointment is a common one, and the loss eventually is borne by the original purchaser. I shall never forget a lot of Rose trees which I once saw unpacked at a nursery, on their arrival from France. Three of them, at twenty-five francs each, were on thin, knotted, withered-looking briars, between five and six feet high, and just showed in one or two eyes that they were not dead—only moribund! Supposing life to have continued, each tree would have required two strong men to hold it in a gale of wind; but as the Rose bore about the same proportion to its stock as a crow's nest to a full-grown Poplar, I consider such a supposition too wild for the most sanguine to dwell upon.

But the Rose trade is not merely a matter of £ s. d.; and I pity the amateur who thinks that it is so. He can never have read that most pleasant little book, by Thomas Rivers, which replaced the Rose on her throne, as the queen of flowers, nor the larger volumes by Paul and Curtis, which prove that the heart is in the cause—he can never have strolled in the Gardens of Berkhamstead, or have driven to "the Common," with worthy Mr. Lane in his gig—he can never have smoked the pipe of peace among the Roses (we florists must fumigate, whatever the *Lancet* may say) with nurserymen, when work was done, and heard them speak, as I have, their love of our royal mistress.

And surely we ought ever to recall with gratitude, what glorious Roses have recently been brought to our gardens by the zeal of the importers. Go back ten years, and who had heard of Géant des Batailles! He appears for the first time in Mr. Rivers's catalogue for the autumn of 1847. Whose eyes had been gladdened by the magnificent Paul Ricaut, or those most beautiful Roses, Auguste Mie, Baronne Hallez, Caroline de Sansales, Generals Bréa, Castellane, and Jacqueminot, Jules Margottin, Lord Raglan, Louise Peyronny, Mesdames Guinoisseau, Martel, Masson, Place, and Rivers; Prince Leon, Reine des Fleurs, William Griffiths, or Gloire de Dijon? What twenty from among the old Roses would "A. R." show against these?

Here, too, I may mention another proof of progress. In Mr. Rivers's catalogue for 1847, *fifty-two* Hybrid Perpetual Roses are enumerated. How many of these are now thought worthy of notice? *Eight only!* What a tremendous reflection for the fairer sex! Forty-four ladies, once in full bloom and leaders of fashion, now not even permitted to be "wall flowers," but expelled from the *beau monde*. And such must be the fate of all who have not true excellence of petal, I mean of principle. Rouge and crinoline may cheat us for a time; but realities alone win our lasting love.

The dealers are quite as anxious to send us these realities as we can possibly be to receive them. But they are not omniscient. The Rose they see blooming so beautifully near Paris, may degenerate in our colder clime; or if it succeed in Hertfordshire, it may fail in the Midland and Northern counties.

And this brings me to the consideration of a fact which, in many cases, effectually prevents unanimity among Rose growers, as to the merits of individual flowers—namely, that not only do these vary in different counties, and in gardens within a few miles of each other, but in the same garden continually, according to the change of weather or of treatment. I have alluded to this in the November number of the *Florist*, and I would now name by way of illustration such Roses as Baronne Hallez, Louise Peyronny, and Prince Leon, three noble Roses, but in my garden (Nottinghamshire) very variable and uncertain. The Rose General Jacqueminot, H. P., whose merits have been recently discussed in the *Chronicle* may be cited as another example; and I have seen it so much more beautiful in the gardens of a friend in Warwickshire, than on my own trees, that I shall not be happy until, by improved cultivation, I bring out the flower in its perfection. So that it may sometimes be said of disputants about Roses, as of the travellers and the cameleon, “you both are right and both are wrong”—you see the shield from different sides thereof. And I would exhort the one who has the flower in its beauty, thankfully to enjoy and maintain its glory; the other to go home and improve it. Never give up a good Rose, until you have used all means to do justice to it. If it will not succeed with you “worked,” try it on its own roots. Give it a sunny corner. Note its habit and endeavour to humour it. Careful and patient love is as necessary to success in Rose growing as in other pursuits, and brings its reward at last. We amateurs are but too apt to decry and denounce a Rose, simply because we don’t know how to grow it. I remember the time, when a baby in floriculture, I first “began” (as mamas say) “to take notice,” that I uprooted Blairii, No. 2 from my garden because I could not realise her lovely flowers. How was it likely, when every March I hacked off her beautiful arms at the shoulder, and cut off her hair like a convict’s?

But it is high time for me to conclude, for the present, at all events, my rambling remarks about Roses; and I will do so with a suggestion to Rose growers—amateurs and professionals:—why should we not have, near some central station (such as Rugby) A GRAND NATIONAL ROSE SHOW?—A feast of Roses, at which the whole brotherhood might meet in love and unity, to drink in prize cups of silver, “Success to the Queen of Flowers.”

S. R. H.

LIST OF PLANTS IN BLOOM IN MARCH, FOR - DECORATIVE PURPOSES.

FOR the information of those of our readers who have to keep up a large stock of plants in bloom in winter and spring, we intend giving each month a list of plants actually in bloom, or remarkable for fine foliage, from places where they are grown extensively for decorating the drawing-room, conservatory, show house, &c. We commence this month with a list furnished us by Mr. Foggo, of Shrubland Park, and

hope to continue them, as we think they may prove useful as guides for all those interested in this branch of a gardener's duties.

ORCHIDS.

Cattleya Skinneri
 Cymbidium aloifolium
 Dendrobium nobile
 „ Wallichianum
 Lycaste cruenta
 Phaius grandifolius
 Stenorynchus, or Neottia speciosa
 Vanda tricolor
 Goodyera discolor

STOVE PLANTS.

Ardisia crenulata
 „ acuminata
 Adamia versicolor
 Amaryllis, various
 Aspidistra lurida variegata (ornamental foliaged plant)
 Begonia fuchsioides
 „ hydrocotilifolia
 „ insignis
 „ Ingrami, and Ingram's seedlings, various
 „ manicata
 „ nitida alba
 „ „ rubra
 Canna picta
 Centradenia rosea
 „ floribunda
 Conoclinium ianthinum
 Dioscorea discolor (fine foliaged plant)
 Dracæna nobilis
 „ terminalis
 Eranthemum pulchellum
 Euphorbia jacquiniiflora
 „ splendens
 Franciscea confertiflora
 „ Hopeana
 „ hydrangæformis
 Gloxinia seedlings
 Hedychium coronarium, for foliage
 Justicias, various
 Maranta albo-lineata
 „ zebrina, fine foliaged
 Mussænda frondosa
 Pentas carnea
 „ rosea
 Pilea muscosa
 Rogieria cordata
 „ amœna
 Solanum amazonicum
 Strelitzia Regina
 „ parvifolia, for foliage
 Torenia asiatica
 Tradescantia discolor
 With Ferns and Lycopods.

GREENHOUSE PLANTS,

And various other Plants brought into flower by forcing.

Acacia Drummondii
 „ grandis
 „ juniperina
 „ longifolia magnifica
 „ rotundifolia
 „ trinervata
 Cinerarias, various
 Correa, Brilliant
 „ speciosa
 Cyclamens, various
 Cytisus filipes
 „ racemosa
 „ rhodophne
 „ æolicus
 Coronilla glauca
 „ variegata
 Daphne indica rubra
 Eriostemon buxifolium
 Habrothamnus elegans
 „ fasciculatus
 Hydrangea variegata
 Kennedyia inophylla
 Leschenaultia formosa
 Leucopogon Richei
 Polygalas, various
 Primulas, single and double-flowered, in 4 and 12-inch pots
 Statice, various
 Tropæolum tricolorum
 „ Triumph de Gand
 „ Triumph de Prado
 Trained on wire trellises of various devices
 Heaths and Epacris, various.
 Mignonette, Roses, Neapolitan and Tree Violets
 Geranium splendens and album multiflorum
 Thyracanthus rutilans
 Pinks and Tree Carnations
 FLOWERS, FORCED.
 Rhododendrons, various
 Kalmias, Azaleas, Andromedas
 Tall and dwarf Orange trees.
 Deutzias, Lilacs
 Bulbs, various
 Indian Azaleas, various
 Camellias, various
 Lily of the Valley
 Weigela rosea
 Dielytra spectabilis
 Lachenalias, various

THE NOMENCLATURE OF FERNS.

SINCE the Ferns have attained the prominent rank they now hold in public estimation, the want of some uniform and consistent catalogue of the species, and especially a ready means of ascertaining the somewhat overabundant synonyms which occur in their nomenclature, has been strongly felt. The published information existing on the subject is scattered through various books, many of them costly, and inaccessible to the majority of readers; and even those publications that are devoted entirely to the Ferns are, as it were, but mere fragments, compared with the subject itself, which has really become an extensive one. This applies no less to the Ferns as a whole, in a scientific point of view, than to those which are introduced to our gardens and more or less known to cultivators.

This want is now in a fair way of being supplied. The "Index Filicum,"* of which the first part is now before us, has indeed been projected for the express purpose of making good this acknowledged deficiency in botanical literature; and the author, Mr. Moore, who is also the author of some of our best books on British Ferns, may be expected to render the present both useful in its plan and trustworthy in its character, as indeed the portion now lying before us gives sufficient indication.

The prefixed announcement states that the book is to be a catalogue of Ferns of convenient bulk and moderate price—as complete withal as a diligent research in the publications accessible to him has enabled the author to make it. It is to comprise a synopsis of the genera of Ferns, with an explanation of their peculiar characters; and the catalogue itself is to afford the following particulars:—(1) References to the most useful publications, where the plants are classified or described; (2) an enumeration of their synonyms; (3) references to figures; and (4) a summary of their known habitats, illustrating their geographical range.

This first part introduces the subject by a very carefully studied analytical sketch of the larger sectional groups into which the whole family is divided; and here we observe that while the nature of the fructification and venation hold a prominent position, more importance than usual is given to the nature and condition of the receptacle. We have no doubt Mr. Moore is right in relying a good deal on the characters afforded by this latter part, to which such marked attention has not hitherto been paid. This portion of the work is followed by descriptions of the genera, which will form an introduction to the enumeration of the species.

We are glad to take the earliest opportunity to indicate the existence of this work, as well as most strongly to recommend it to all those who desire to follow a consistent and reasonable Fern nomenclature, for it is

* INDEX FILICUM, *a Synopsis, with Characters, of the Genera, and an Enumeration of the Species of Ferns, with Synonyms, References, &c.* By Thomas Moore, F.L.S., F.H.S., Author of the "Handbook of British Ferns," "The Ferns of Great Britain and Ireland Nature-Printed;" Curator of the Chelsea Botanic Garden. London: Pamplin, Frith-street, Soho-square.

certainly the best which has appeared on the subject, or, indeed, seems likely to appear. For ourselves, we shall anxiously look for the appearance of the succeeding parts, which it is announced will take place monthly, so far as the somewhat laborious task of preparation will permit. We may mention that the book is extremely well printed, a judicious arrangement of distinctive type being adopted.

Rendle's Price Current and Farm Directory. 1857.

A DESCRIPTIVE and well-arranged selection of agricultural seeds, with well-digested reports of the constituents of most of the artificial manures, and their effects on different crops, we understand, by Mr. Lawes. A useful Calendar and Farmers' Directory follow. Altogether, an extremely useful work of reference to the farmer, and should be in the hands of all interested in land.

Sutton and Son's Farm Seed List for 1857.

THIS firm restrict their list to the description of the seeds they offer for the farm, for which they are so celebrated. We particularly recommend to the notice of farmers laying down land to pasture or field grass, and gardeners forming or improving lawns, their descriptions of the suitable Grasses for each, to which we know the Messrs. Sutton have paid great attention.

CALENDAR FOR THE MONTH.

Auriculas.—These are already beautiful, though without flowers, the delicately powdered foliage being as handsome as any of the variegated and fine foliaged plants that are at the present time so much in fashion. In addition we shall soon have their delicate and beautiful flowers, far more handsome than those produced by the most costly exotics, many of which are grown for their foliage only. Yet the Auricula, though nearly hardy, is, in regard to its cultivation, almost deserted; a tenth of the trouble, and the same amount of expense, devoted to the culture of many worthless and weedy newly introduced plants, would ensure a satisfactory return for the outlay made in the cultivation of the Auricula. The plants being now full of growth, water more freely and shade them from the midday sun with netting or thin canvas. Towards the end of the month remove the plants to a northern aspect, to prolong their bloom.

Azaleas.—Pay all necessary attention to plants coming into flower. Any plants not showing bloom may be potted if they require it. Attend to the stopping and tying out of young plants; keep up a moist, growing atmosphere; syringe daily. Give air freely, but guard against cold draughts.

Camellias.—Water freely with weak manure water, but see that the pots are well drained. If it be desirable to have a few plants in flower

in the autumn, they should now be potted and put into a good heat, where they should be syringed frequently, in order to excite them to grow.

Carnations and Picotees.—Complete potting for bloom at once, if not already done. If the plants are at all long, secure them at once with small stakes.

Cinerarias.—These will require shading in bright weather, and constant attention in regard to watering. Late plants will yet require another tying out of the branches, so as to allow the plants another opportunity of expanding without confusion, as well as to form handsome plants.

Conservatory and Show-house.—As many of the plants are now beginning to grow, air should be admitted freely when the state of the weather permits. Syringe all plants not in flower. Attend to the training of climbers. See that no dust or filth of any kind lodges on the leaves of Camellias, Orange trees, &c. ; the syringe will in general keep them clean, but when necessary they should be washed clean with a sponge. Many kinds of greenhouse plants—such as Leschenaultias, Pultenæas, Boronias, Hoveas, &c., will now be in a fit state to decorate the conservatory and show-house ; they should be placed in the most airy part. Towards the end of the month Chinese Azaleas will also be coming into flower. Cinerarias will now be in all their beauty ; they are very useful objects for decoration at this season. Have a liberal sprinkling of Roses, Bulbs, Mignonette, and Violets. Keep a sharp look-out for insects. Keep every plant, pot, and place as clean as possible. See that nothing suffers from want of water, and in windy weather give air by the top lights ; when mild, admit front air.

Cucumbers.—These will now require constant attention in thinning the shoots ; they should never be allowed to grow crowded, nor should one leaf be shaded by another. Plants that have been bearing some time will be benefited by having two or three inches of fresh soil placed over the surface. Maintain a moist growing atmosphere. Keep up a temperature of about from 65° to 70° by night, and of about 80° to 85° by day. Attend regularly to watering and giving air. Keep a sharp look-out for insects, particularly red spider. See last month's directions.

Dahlias—Such cuttings as are struck should be potted into small 60-pots, and be grown on for a time in a gentle heat, after which harden them gradually, but give them sufficient pot room to keep them growing, the earliest struck cuttings being liable to become pot-bound and stunted. Continue to put in cuttings. Now is also a good time for sowing seed in a brisk heat. Roots of common sorts, for border purposes, which are intended to be divided, may now be started in a gentle heat.

Flower Garden.—Push forward alterations with all possible dispatch, so that the beds, &c., may be in proper order to receive the plants in due time. The gravel walks, the Grass, and the edgings will now require more attention. Look well to the stock of plants, so that there may be sufficient of everything at planting out time. Sow annuals.

Forcing Ground.—Attend carefully to the Potato pits ; give them

plenty of water when young, but keep them as dry as possible as they approach maturity; give them abundance of air. Sow Capsicums, Tomatoes, Sweet Marjoram, Basil, and Celery. Sow French Beans, and attend to the watering of growing plants. Sow Cucumbers for ridges. Sow Mustard and Cress every ten days or so, according to the demand. Seakale will merely require covering to blanch.

Forcing Hardy Shrubs.—Keep up a night temperature of about 56° to 60° , and a day one of 76° to 80° . Give plenty of air at all favourable opportunities, carefully avoiding cold draughts. Syringe daily, and water freely when necessary. Those plants that are done blooming, which have been forced, should be kept under cover somewhere until the return of fine weather.

Fruit (hardy).—Pay great attention to the protection of the wall trees; it is a good plan to thin the blossoms, particularly when there is a great quantity. Apricots will, towards the end of the month, be set; they should be thinned if there be too many for a crop. Grafting should be completed as soon as possible. Fig-trees may be uncovered towards the end of the month. Mulch newly planted trees to keep them moist at root. Watch for insects, and use every means to keep them under.

Greenhouse (Hard-wooded Plants).—Some of the plants potted at the beginning of last month will require stopping and tying out. Cut back Epacris and other plants that require it as they go out of bloom. See directions in last month's Calendar. *Soft-wooded Plants.*—As these will now be growing rapidly, they will require constant attention in stopping, tying out, watering, &c. The moment green-fly makes its appearance fumigate with tobacco.

Hollyhocks.—Strong plants may now be planted out to prevent their becoming pot-bound, which causes them to produce a premature spike of bloom. Late struck cuttings should be repotted into good rich soil, and grown under glass for a few weeks before turning out.

Kitchen Garden.—If any circumstances have prevented the operations of seed-sowing, or the transplanting of crops, no time should be lost in bringing up all arrears. All Cauliflowers and Lettuces that have been wintered in frames or sheltered situations should be planted out. Plant the general crop of Potatoes. Plant herbs. Broccoli of sorts, Cabbages, Cauliflowers, Lettuces, Savoys, Borecole, Brussels Sprouts, Spinach, Turnips, Beet, Carrots, Salsafy, Scorzonera, Celery, Parsley, &c., should now be sown. Peas and Beans sow for succession; also Mustard and Cress; likewise Radishes. Earth up Cabbages. In dry weather hoe among crops. Use every endeavour to keep down insects, which if once suffered to get ahead at this season will do a great deal of injury.

Pansies.—These will now have commenced flowering, and should large flowers be required for exhibition, those now expanding should be gathered to increase the size and quality of the after flowers. This process strengthens the flowers very much. If they are grown only to make the borders gay, the earlier they are in bloom the better.

Peach-forcing.—Attend to the tying down of the shoots as soon as they are sufficiently long. Attend to the thinning of the fruit; do not

on any account leave too many on; by being content with a moderate crop, the fruit will be fine, and the trees with proper management will be in a condition to do good work another season. Secure a moist growing atmosphere by syringing the trees daily and sprinkling the floor of the house. Maintain a temperature of from 56° to 60° . Water well all the borders when they require it.

Pelargoniums.—Those plants intended for early bloom will now show their flower-buds above the foliage, as the varieties designed for the May exhibitions should be doing this. Unless they are specially intended for exhibition purposes, the less they are hurried into bloom the better; they should have time allowed them to expand properly and grow to a good size. These remarks apply to the May plants. Tie into form the shoots as they grow; a *Pelargonium* cannot be made a handsome plant by once or even twice tying out the shoots; it requires to be done carefully, a little at a time, as the shoots elongate. During the brightest part of a sunny day, the plants will derive great benefit from the shading being spread on the house for a short time only. Carefully examine the plants twice a day in dry, harsh weather, to ascertain if any require water. After a warm bright day moisten the house a little after closing it. Prepare soil for the autumn potting, if not already done.

Pinery.—Secure neatly to stakes the fruit, in order to keep them in an erect position. Keep a moist atmosphere and water liberally. The young stock should now be potted; strong plants with good roots may have a liberal shift, but in general we do not like large shifts at this potting; we prefer giving them small shifts at this potting, and as soon as they have filled these with roots (which they in general will in a few weeks), to give them liberal shifts. There may be a little more labour in this plan, but the plants will make more rapid progress by this method. In potting, press the soil firmly; when potted they should be plunged into a bottom heat of about 85° , and they should have a moist atmosphere and a liberal supply of air, but they should not be watered for two or three weeks, by that time the roots will be through the balls. After this they will grow rapidly.

Pinks.—Fill up any vacancies occasioned by the winter from those grown and wintered in pots for that purpose.

Pleasure Ground.—Pay particular attention to newly planted trees, the strong winds of the past month have been very trying to them. Finish all alterations as speedily as possible. Roll the Grass frequently.

Roses.—Attention to rubbing off buds *now* will save much trouble hereafter, and the plants will be much benefited by checking useless growth. Complete pruning of Tea-scented and other tender varieties. To repeat that those cultivated in pots require the syringe and liquid manure can be scarcely necessary.

Tulips.—These must now be carefully watched, a hail-storm would do them irreparable injury; neither should they be allowed to have any rain fall on them for a time, until they are more secure from spring frosts, being now in a state to hold water, and should it freeze after a wet day the young bud would in all probability get much injured. Cover also at night, but not till late in the day if the weather be fine.





JH

Erica (Ingrami)
Plate 126

ERICA INGRAMI (MR. INGRAM'S HEATH.)

(PLATE 126.)

THIS handsome hybrid Heath has been selected for illustrating our present Number, from a number of seedlings raised by Mr. Ingram, the well-known and esteemed superintendent of the Royal Gardens at Frogmore.

Erica Ingrami appears to be a cross between *E. hyemalis* and probably *Linnæa*, or one of that class, for its exact parentage is not remembered. It is a very free-growing variety, remarkably compact and bushy, and producing its blooms in great abundance; it must therefore prove a valuable acquisition to this favourite family, and will doubtless become a popular variety when better known. Its period of blooming is from February to May, and, judging from its habits and alliance with the *hyemalis* class, we should say there would be no difficulty in inducing it to bloom throughout the winter months.

The short notice of the Royal Gardens, found in another part of our journal, will inform our readers that Mr. Ingram is a successful hybridist with many other popular plants. The Royal Gardens have produced many beautiful seedling *Epacris*es, bedding *Geraniums*, *Achimenes*, besides which there is a number of fine varieties of *Cinerarias*, *Calceolarias*, *Azaleas*, *Gloxinias*, and many other kinds already proved or undergoing that trial, of which we doubt not some will turn out valuable and interesting.

ORCHARD HOUSES.

I HAVE been much interested in the discussion that has recently taken place in the *Florist* in regard to this matter; and although I have no wish to interfere in any way with the disputants, still there has been some doctrines and practices brought prominently forward, which appear to me altogether untenable; I would, therefore, crave a small space in the pages of your valuable serial to point out the discrepancies to which I refer, in order that they may be discussed and something like an understanding come to on points of such radical importance;—and surely no medium can be more appropriate than the pages of the work in which this discussion has originated.

It may be proper to premise that, like your correspondent "Pomona," I too am "masculine," possessing, however, an advantage to which that fruitist does not pretend, in having planned, erected, and cultivated an "orchard house" of considerable dimensions, in which Peaches, Nectarines, Cherries, Pears, Plums, Apricots, Figs, and vegetables are grown in the free soil, and from which Vines have been discarded; Strawberries

are also somewhat extensively grown there in pots. I have also another house under my care, in which all the plants are in pots and forced, and they are at this moment a source of great "interest" and "delight" to me. They consist of Peaches, Nectarines, Apricots, Figs, Cherries, Plums, Raspberries, Currants, Strawberries, and Gooseberries; there is also a Brazilian Guava growing in the free soil and trained on the back wall of the house.

First, then, Mr. Editor, you state in a foot note at page 20 of the current volume, "There can be no question that orchard houses are valuable addenda to large gardens, not so much for Peaches and Nectarines (as glass-covered walls and Peach-houses abound) as for obtaining Pears, Plums, Apples, &c., in such perfection for the dessert table, and ensuring a crop." Now I here firmly and emphatically enter my protest against this doctrine, and assert that these erections are valuable addenda to every garden—that they are proper erections wherever the sun and wind can reach them; and so thoroughly am I imbued with this impression, that I have recommended two of my friends to put up orchard houses on the leads of their houses, situated in Oxford-street! Peaches, Nectarines, and all stone fruits do well in these houses if there is an abundance of air. The best-flavoured Pears that I have eaten this season have been grown under glass; and no doubt some of the more delicate Apples, which are never grown to perfection in this country, (and of which the American Lady Apple may be taken as a type) might be very judiciously grown in these houses, and each and all of the fruits named would unquestionably do equally well in houses or glass-covered walls as Peaches or Nectarines are grown, and *vice versa*. But I presume you would not wish to be understood as recommending the Hawthornden, a Scotch kitchen Apple, which grows and fruits anywhere and everywhere, and that, too, in all seasons. Why, at Waterer and Godfrey's nursery, I observed some years since a hedge of it, which I fancied at the time was the most perfect specimen of fruit tree training I had ever seen, and I expressed my admiration of it by stating that I thought it was the very best thing they had about the place; they however pointed to some large grafted specimens of the Noble Pine, admitting, however, that the Apple hedge might probably be the most useful, by reason of its productiveness.

That Grapes can be grown and ripened in glass structures, year after year, without the aid of any heating apparatus, there cannot be the slightest doubt. I, at least, have accomplished this for many seasons; and I have seen a plentiful supply of ripe Grapes at Sawbridgeworth, in October, perfected without such assistance; but how Mr. Rivers keeps them afterwards, that gentleman can best describe. Those under my care are usually in cut till the middle of February, being kept safely from the ill effects of frost and damp by the kindly warmth of a hot water pipe. But notwithstanding all this, I by no means consider that Vines are adapted for a cool orchard house in which Peaches, Apricots, and Plums are grown, the temperature necessary for the one being altogether unsuited for the other. Nor does the foliage of the Vine harmonise with the others; and if they are trained on the pillars, rafters, or other prominent parts of the building, the shade they produce is of

the most disastrous character. I planted forty Vines in different parts of the orchard house here—they were in pure turfy loam, and produced short-jointed rods of an enormous size, with bunches fully corresponding—but I soon perceived that even the first frosts and damps of autumn were too much for them, and to sacrifice for such fine crops of Coe's Golden Drop Plum, which hangs on the trees in the highest perfection up to the middle of December, was not for one moment to be thought of. And who, I would ask, would ever partake of Grapes or even Pine Apples in preference to those ripened under the circumstances I have described. And what a splendid addition these stone fruits are to the dessert at a late period of the season—and at a time, too, when gentlemen usually have their large parties in the country—and they are invariably partaken of in preference to Pines, Grapes, Pears, &c. The same reasons that have induced me to root up these forty Vines, have also determined me in a great measure to discontinue the cultivation of the Fig in the house in question; nor does a second crop of even the Marseilles variety ripen in the most favoured position. Consequently, I hold that neither Vines nor Figs are proper subjects for cultivation in a house in which stone fruits are grown and kept till a late period of the season; but should be in respective divisions in which much more warmth can be given than is required for perfecting wood, and keeping till a late period the various fruits to which I have already referred.

On the proper style of plants for a large orchard house, there seems to be a diversity of opinion. Mr. Rivers recommends half standards, bushes, and pyramids, the three feet standards, to have their heads “spread horizontally, by carefully pinching out their central shoots, and pruning so as to offer a large surface to the sun; for the Peach without a *sunny side*, *i.e.*, a rosy cheek, is too often flat and insipid.” I have seen the standard Peaches in the gardens of the Earl of Essex, at Canterbury under the very skilful management of the late Mr. Anderson, but I confess that even under his care this system did not please me; and I feel perfectly convinced that by no other means can the fruit and foliage be so well exposed in the sun and light as on a properly constructed trellis. I do not mean those fancy things which one meets with now and then, and which usually fill the house with darkness during a great portion of the day. Such I acknowledge look exceedingly well on paper, and make a very pretty picture for a work on gardening. The best practical men, however, with whom I have conversed, eschew them for the reason I have stated. A well constructed trellis ought to present to the sun and light the greatest possible surface for training that can be obtained in a given space, and some recent erections I have seen appear to me exceedingly faulty in this particular, the superficies of trellis bearing but a very small proportion to the amount of glass used in the structure. It is now, I believe, generally admitted that success in fruit growing does not so much depend on the quantity as in the excellence of the produce; and here the thinning occupies some time, and one finds as the season advances that this operation had been better performed had it been done more severely, nor do I find that plants grown in pots are less productive, or the fruit inferior in point of flavour to those grown in the free soil. I have never

grown the fruit so large nor do I expect to get Peaches so rosy cheeked as those in a full exposure on a neighbouring trellis.

To restrain what is robust, to stimulate what is weak ;—this is the peculiar province of the gardener's art, and on its due exercise will depend much of the success attending fruit tree cultivation. To Mr. Rivers we are all much indebted for his labours in this direction ; and for his continued advocacy of root pruning, a system which originated with the late Mr. Beattie, and was long successfully practised by him in Lord Mansfield's garden at Scone, in Perthshire ; and it is a system from which, if properly performed, the very best results will ever follow. To Mr. Rivers we owe the system of allowing the roots of trees in pots to penetrate through into a properly prepared border underneath, and in my estimation this is the very key to the whole mystery which has so long been a puzzle to gardeners. The trees thus depend less on the continued drenching of the water-pot, nor do they require it, ranging as they do almost uninterruptedly in the free soil, consequently the fruit is infinitely better flavoured than it can possibly be under any system of *mere pot management*, however well conducted. In olden times there was an impression, which I believe was not altogether ill founded, that fruit from trees in pots, and more especially Peaches and Nectarines, "were either sour and insipid," or something "like a ball of worsted"—"woolly"—"and almost destitute of moisture."

I do not indulge in the use of dung so freely as many recommend ; my panacea, alike for fruit-tree borders and fruit-trees in pots, is rotten surface loam with a certain admixture of half-inch bones, a plan from which I have ever obtained the most satisfactory results ; the roots seem to lay hold of this with avidity—the foliage, too, soon assumes, under such circumstances, a broad and shining character altogether different from trees grown under ordinary circumstances, or gorged with a superabundance of farm-yard manure ; nor could I better illustrate this position than by referring to the practice in a certain nursery not quite twenty miles from where I am now writing. I used to go there a good many years since to purchase fruit trees, but I never could get them to grow satisfactorily ; the wood was gross and spongy when they were planted, and with all the coaxing imaginable I failed to do much with them. I called there again last autumn, and in looking round I carefully examined their stock of fruit trees, remarking that their growth was altogether of a different character to what I had formerly been in the habit of seeing it. My worthy neighbour replied—"You know the reason. In my poor father's time a hole used to be dug and a large spit of manure put in, on which the stock was planted. Now," he said, "I find it to my interest to use only fresh soil from the common." Certainly, I never saw a cleaner or more healthy stock of fruit trees, and nothing could contrast more favourably than they did with the stock grown on the same ground some years previously. To Mr. Rivers we are also indebted for pointing to the ill effects of plunging fruit-tree pots in the earth. Assuredly, they should never be placed there under any circumstances whatever, as neither wood nor fruit will attain perfection under such conditions. I think, however, that I derived some benefit in the last

season by placing some loose half-rotten leaves in near contact with the sunny side of some pots heavily laden with Peaches ; this, I fancy, with surface mulching, checked in some considerable degree the amount of evaporation at the hottest period of the season, when the fruit was approaching maturity, and tended materially to enhance the saccharine qualities of the fruit. There is danger also in under watering, at the critical period to which I refer.

“ But there are so many modes of adapting houses to fruit-tree culture, all more or less eligible.” In this view I entirely coincide, considering that wherever a late vinery exists there are the means for obtaining an early crop of fruit from trees in pots. Here there are three such houses from which we are now gathering ripe fruit. The Vines are excluded by temporary means, which will be removed as soon as the buds are fully swelled, and the Grapes in two of these structures are invariably ripened without the aid of any heat whatever. The third house is planted with Vines of a more tender nature, and will have the advantage of artificial heat, derivable alike from the hot-water pipes and a Pine bed which runs the whole length of the house ; and, to use a common gardener’s phrase, this house will be “ in cut ” before the other two to which no artificial heat will be applied. Nor do we grow any “ inferior sorts of Grapes.” On the contrary, we have some varieties “ remarkable for the excellence of their quality,” which are cultivated exclusively in these cool houses. I know no labour at once so distracting, ill-directed, or unprofitable, as that which is engaged in cultivating “ inferior sorts of Grapes,” in the hope that they “ perhaps may do with good management.”

In concluding this rather long article, which, however, has grown upon me as I proceeded, I can only plead in extenuation the all-important subject of which it treats—the cultivation of fruit-trees under glass. It is indeed a “ delightful ” occupation, much enhanced to me by the pleasure I feel in seeing a gentleman of wealth and station day by day taking an equal interest in all these matters with myself.

S. N.

A FEW WORDS ABOUT BEDDING PLANTS.

SINCE last referring to this subject many novelties have been introduced and tested ; and as the bedding-out season is fast approaching, we deem it advisable to detail our experience of them for the benefit of others.

Of scarlet Geraniums one of the very best is Attraction, a dwarf and very free-blooming variety, with large trusses. Indispensable is most desirable for edging, or where a very dwarf variety is wanted, as it is an exceedingly dwarf grower and profuse bloomer. Lady Downes is a beautiful variety, of a soft rosy carmine colour, and a very free bloomer of dwarf habit. We need scarcely add that scarlet Geraniums for beds, to be truly attractive, should be autumn-struck plants, and not young, vigorous, spring-struck plants. Of the pink or rose coloured varieties

the best of all is Princess Royal, a bright coloured, dwarf, free-flowering sort, raised at the Royal Gardens, two large beds of which had a very bright appearance, late in September last, in the terrace flower-garden at Windsor Castle. The best variegated-leaved variety is Alma, a greatly improved Flower of the Day. This is the best of all for bedding. Mountain of Light and Mrs. Lennox are also excellent varieties. Of Countess of Warwick and Annie we are unable to speak definitely at present.

Among Verbenas we have some great acquisitions. From the Continent we last year received a very fine maroon coloured variety, called Jaquirita; also a dwarfer growing variety of the same colour, named Madame Abdt; both admirable bedders, and of a colour much wanted. In dark purples Field Marshal is most desirable and makes a good bed, and is not a coarse grower; Duke of Cambridge, rich dark purple, is very fine. Standard Bearer is a rich blue purple with a large white centre, of moderate growth, and an invaluable bedder. Victory, rather a strong grower, but a noble variety, is a good light purple with large light eye, and makes a capital bedder, but requires to be pegged, and is too strong a grower for very small beds. In crimsons and scarlets we are now rich. Admiral Dundas, of a crimson scarlet colour, is one of the best bedding Verbenas we have. Crimson Perfection, rich ruby crimson, is a very fine bedder. Géant des Batailles will be a fine bedding variety for cold districts, as it is a strong grower, of a deep crimson colour, with darker centre. Noel will prove a very fine scarlet variety, of moderate growth, for bedding, bright scarlet with dark centre and white eye, and large truss; and Pre-eminent, of a glowing rosy scarlet colour, also makes a brilliant bed. One of the very best scarlets is Miss Trotter, and should be grown by everybody. We saw this in large masses at Dalkeith last September, and that it was a first-class bedding variety, of a brilliant scarlet colour, and an immense bloomer, continuing so until most other varieties are out of flower. It is not so strong a grower as Mrs. Woodroffe and others, and is suitable for large or small beds. In rose coloured Verbenas we now have Madame Plantamour, pale rose with dark eye, a capital bedding variety, and distinct and handsome. Loveliness has also proved a valuable bright rose variety, but it will certainly be outrun by Rosy Gem, an invaluable rose coloured variety for bedding. The best pale blue is Blue Bonnet, although in very hot weather this variety is apt to discolour and become pale, but when the weather is not too hot it makes a telling bed. The best whites yet are Mrs. Halford and Mrs. Foster; the latter not quite so strong a grower as Mrs. Halford, and fully equal to it in form and colour. Even among the new Verbenas of last year there are many other really good varieties, but we have not space further to speak of them, neither can we enumerate the older varieties, but this to a great extent is unnecessary, as they are now pretty well known. We know that many of the smaller kinds that do admirably in the south will not do so well north of Leicestershire and Lincolnshire, and have therefore borne in mind this in penning these remarks, selecting only free growing varieties of decided colours, that will suit all localities.

In shrubby *Calceolarias* immense strides have been made. Instead of the old loose-growing kinds, we have now compact-growing, firm-stalked sorts, that will stand a little rough usage from the weather. In crimsons, King of Sardinia, Camden Hero, and General Pelissier are all very fine and somewhat similar. They are of Sultan habit, but do not grow so tall. In yellows there is Goldfinder, a fine rich yellow variety with stiff footstalks; Erecta, rich yellow, close, stiff habit, and invaluable—no garden should be without this, and Aurea floribunda, orange yellow, and an immense bloomer. The best pale lemon is Cleopatra, of dwarf habit; and the next Pallida, which is rather a taller grower. Hawk, orange, thickly spotted with brown, makes a good and very distinct bed; this variety being moderately dwarf, and a stiff grower. Orange Perfection is one of the most valuable of all—soft pale orange, and a capital grower; this should be everywhere. Orange Boven, darker in colour, is also valuable. There is a fine dark crimson variety named Comet, of capital habit, that will be most useful in the north as a bedder, where the season is shorter, and the soil and temperature not so hot and dry as with us in the summer; there it will be very fine out of doors. Hitherto we have not found Eclipse a free grower, but it is unapproachable in intensity of colour, being nearer a scarlet than any other, of excellent habit, and a most beautiful variety. This spring it is growing much more freely with us, and we are induced to think it can yet be made a free-growing bedding variety.

Some of the new sorts now coming out for the first time are admirable bedders, especially Yellow Prince of Orange and Rubra. Both of these varieties are of "Prince of Orange" habit; one a bright yellow, the other light red. Lady Middleton and Yellow Dwarf are also first-rate.

In *Petunias* not so much has been done. Out of doors, Imperial has disappointed a great many; and for this reason, it is a very strong grower, and late spring struck plants were used. At the Royal Gardens, Frogmore, were large beds on the Vine borders, in full flower, last autumn; but although it will not be generally used as a bedding plant, it will be available in many warm districts, where autumn struck plants are used, and they are planted in a poor soil in a dry situation. Two of the striped continental varieties are capital bedders—Dr. Andry and Marquise de St. Innocent. The latter is not quite so good a grower as Dr. Andry, but is brighter in colour. They are both of a carmine colour with small white stripes, and make a bright bed. Countess of Ellesmere is pretty, but changes colour so much, and we think not equal to Shrubland Rose; it is certainly not so beautiful in colour as Marquise de la Ferte, but perhaps a better grower. Springfield Rival is one of the finest crimson bedding varieties known. Of the new continental *Petunias* we as yet know nothing, but shall prove them this summer. We are yet badly off for a good pure coloured single white. In *Heliotropes*, we think Miss Nightingale the best light variety, and Beauty of the Boudoir the best dark; and both are good. The best blue *Lobelia* is decidedly "*Erinus speciosa*," deep blue with white eye, and a free growing spreading variety. A small bed filled with this and edged with *Koniga variegata*, kept very close, has a charming effect.

We think *Delphiniums Hendersoni*, *magnificum*, and *formosum*, pegged down, would be very effective for beds, as they are more continuous bloomers than the other kinds, and these could be edged with Flower of the Day, or some rose-coloured dwarf *Geranium* or other suitable plants kept dwarf. The dwarf Dahlias, such as *Crystal Palace*, *scarlet Zelinda*, &c., looked well when pegged down at the *Crystal Palace* last year. *Centaurea argentea*, with its beautiful silvery foliage, will be a most valuable plant for bedding purposes, either for edges or for ribands; but it is very scarce yet.

DO FRUIT TREES DEGENERATE?

As this question has been opened afresh, it should not be allowed to rest until by careful investigation sufficient evidence is collected to convince the most doubtful. As you solicit information from your correspondents, I willingly contribute my mite.

It has never surprised me that the theory of the late Mr. Knight has met with many ready supporters. When orchard trees, through neglect, are allowed to get into a state of decay, it is an easy way of accounting for it, to say that the varieties are wearing out. Before Mr. Knight advanced his theory, it was the general belief that when a good variety of fruit was once originated from seed it might be continued by grafting and budding for ever. And this opinion is still maintained by the most distinguished physiologists. "Varieties," says De Candolle, "will endure and remain permanent, so long as man chooses to take care of them, as is evident from the continued existence, to this day, of sorts, the most ancient of those which have been described in books. By negligence or through successive bad seasons, they may become diseased, but careful culture will restore them, to all appearance, for ever." I at once admit that in the common mode of propagation, varieties are constantly liable to decay or become comparatively worthless; but I believe that this is owing not to natural limits set upon the duration of a variety—that it does not depend on the longevity of the parent tree, but upon the care with which the sort is propagated, and the nature of the climate or soil where the tree is grown. It is a well-established fact, that a seedling tree, if allowed to grow on its own root, is always much longer lived, and often more vigorous than the same variety when grafted upon another stock; and experience has always proved that in proportion to the likeness or close relation between the stock and the graft is the long life of the grafted tree. Thus a variety of Pear grafted upon a healthy Pear seedling, lasts almost as long as upon its own roots; but when grafted on a Quince it is comparatively short lived: this is well known to every practical gardener.

The apparent decay of a variety is often caused by grafting upon unhealthy stocks. For although grafts of very vigorous habit have frequently the power of renovating in some measure, or for a time, the health of the stock; yet the tree, when it arrives at a bearing state, will, sooner or later, suffer from the diseased or feeble nature of the stock.

Carelessness in selecting scions for grafting is another fertile source of degeneracy in varieties. Every good cultivator is aware that if grafts are cut from the ends of old bearing branches, exhausted by overbearing, the same feebleness of habit will in a great degree be shared by the young graft. And on the contrary, if the thrifty straight shoots that are thrown out by the upright extremities, or the strong limb sprouts, are selected for grafting, they insure vigorous growth and healthy habit in the graft.

Unfavourable soil and climate are likewise powerful agents in deteriorating varieties of fruit trees. Certain sorts that have originated in a cold climate are often short-lived and unproductive when taken to warmer ones, and the reverse. This arises from a want of constitutional fitness for a climate different from their natural one.

Any or all of these causes are sufficient to explain the apparent decay of some varieties of fruit.

Having given this brief explanation of the degeneracy of races, I will now take a glance at the actual state of one of the so-called decayed varieties—the Ribston Pippin Apple—and see whether it is really extinct or on the verge of annihilation.

You have satisfactorily shown in the *Florist* for March, that this much-esteemed Apple is not extinct in the south of England; and that it has not disappeared from Yorkshire, I am prepared to show. I am now writing within three miles of Ribston, and I will show that although the original tree has disappeared, the variety has not ceased to exist. I cannot at present state the exact date of the disappearance of the original tree, at Ribston; but it is something more than twenty years. Mr. Abbott, the very able and intelligent gardener at Ribston, has a drawing of the original tree as it appeared about thirty years ago. It was then only the mere relic of a tree, nearly prostrate on the ground, and supported by props; it had scarcely any branches, and from appearances it was all but dead. Now if this was the actual state of the original tree thirty years ago, it must have been *in extremis* many years before that time. I have been informed that this was actually the case.

If I have made the least mis-statement respecting the original tree at Ribston, I shall feel thankful to be corrected. On the spot where the original tree stood, there is now growing a young tree, said to be a sucker from the original. It makes pretty vigorous growth every year, but it can never attain a large size, for two reasons—first, because it has a bad crooked stem; and secondly, because it stands singly in a rather exposed situation. From the above it will be seen that the original tree totally disappeared more than twenty years ago; and it was *in extremis* many years previous, and that, according to Mr. Knight's theory, all the other Ribston Apple trees in Yorkshire had ceased to exist. I will now show that this is not the case.

There are at this place twelve Apple trees in a corner of what was once a large orchard. The greater portion was taken away upwards of sixty years ago, and planted with forest trees, principally Ash, Elm, and Sycamore. Many of these measure 12 and 13 feet in circumference within 1 foot of the ground. Of these twelve Apple trees, seven are

Ribston Pippins, and the other five are a small sort, the name of which I do not know. These Apple trees are considerably more than one hundred years old, and they are still healthy and productive. Last year they had very few fruit; but in 1855, they bore a good crop of Apples. I that season gathered several bushels of fruit from these trees as perfect and as fine as any person could wish to see. There is, at the present time, living within 300 yards of these trees, an old gentleman who has known them since 1804: and he assures me that they have increased little in size these last fifty-three years. He says they were old trees when he first knew them; and that they have borne crops of fruit ever since when Apples have been a crop in this neighbourhood. I see no reason why these trees should not continue to bear fruit for many years to come. They have never had anything done to them in the way of pruning. These are not the only Ribston Pippin trees in this neighbourhood. There are others to be found in every old orchard—in several to my knowledge. When Apples are a good crop, Ribstons of a superior quality can be bought in any of the market towns around here. This is proof that they have not wholly disappeared. That the Ribston Pippin has gone to decay in many localities, and that young trees become diseased, are facts but too true; but I repeat that this is owing entirely to bad culture and propagation. There is no practical gardener who would expect a graft taken from, I will say, the original Ribston Pippin tree, when *in extremis* and put on to a bad stock, ever to come to a strong healthy tree: yet this is too common a practice. In general there is very little attention paid to the stocks, and much less to the grafts. Is it any wonder that we hear so much about the wearing out of races! No, it is only the results of our own bad management. When a variety degenerates through the want of proper culture, proper attention to the selection of grafts and stocks, and good culture, will restore it to all its original vigour.

Though the original tree at Ribston has disappeared, and those in East Lothian have also ceased to exist, it is satisfactory to know that there are still many healthy fine old trees throughout the length and breadth of the land, and it is also satisfactory to know that the sort can be perpetuated in a healthy state as long as man chooses to do so, by properly attending to its propagation and culture.

Stourton.

M. SAUL.

ROYAL GARDENS, FROGMORE.

WE venture again to give our readers a brief description of the principal features that attracted our notice in looking through these noble gardens the other day, hoping it will prove as instructive to others as the visit was to ourselves.

The most interesting part of this establishment at this season of the year (*viz.*, 15th April) is the forcing of fruit and the plant-houses. On entering the greenhouse at the east end of the principal range a fine display of bloom met our eye. A row of seedling Epacrises occupied

the front of this house, trained as standards, and about two feet in the stem, with good compact heads; these form very pleasing objects, and are useful for decoration, more especially as they are in flower several months of the year. To keep the heads compact they require continual stopping and all rambling shoots cut back, and not *tied* in. Many very pretty varieties were among this batch of Mr. Ingram's seedlings—several resembling *miniata*. Azaleas and Rhododendrons were also very gay; among the latter we noticed a fine plant of *R. Blandyanum*, with large trusses of rose-coloured flowers; this is a very good variety. *Donna Maria* is also a good kind, of a deeper colour than the above. Several seedlings were also in flower; amongst them we noticed some very good scarlets. The *Cinerarias* also made a fine display; they were mostly seedlings, and several among them very showy varieties. The back wall was covered with climbing plants; amongst those in flower was *Hardenbergia monophylla*, literally covered with its beautiful blue flowers, which contrasted well with the scarlet blossoms of the *Clianthus puniceus* growing by its side. In this house was a number of seedling Heaths, many of them in bloom. We mentioned these in our notice of last year, p. 147, and were pleased to see them fully bear out the good opinion we then formed of them.

The plant stove in the front range was remarkably gay for the season, principally with *Begonias*, and we never remember to have seen a finer collection of these charming and useful plants. Among the latter we noticed *Begonia sanguinea*, *B. manicata*, *B. albo-coccinea*, *B. hydrocotilifolia*, *B. fuchsioides*, and *B. hybrida*, a very fine variety raised by Mr. Meredith, late gardener at Clevedon. Mr. Ingram's hybrid varieties certainly figured among the best. *B. nitida rubra* is a great improvement on *nitida*, being of a deeper rose, with the same habit as its parent. *Ingrami* and *suaveolens rosea* are fine varieties. Several excellent seedlings not yet named were also in flower, principally hybrids from *nitida* and *fuchsioides*. At each end of this house, planted in the pit, we observed two noble specimens of the New Zealand Tree Fern (*Dicksonia squarrosa*), with fronds from six to nine feet long; we understand that one of these specimens will shortly be sent to the Botanic Garden, Kew. Trained on the back wall were the beautiful and sweet-smelling Jasmine-like *Rhynchospermum* and *Passiflora princeps* in flower. A finely grown plant of the *Thyrsacanthus rutilans* was then going out of flower, which to all appearance had been very beautiful throughout the spring. Suspended from the roof was that most beautiful of all stove climbers, *Bignonia venusta*, crowded with its rich deep orange blossoms.

In the smaller plant houses at the back of the principal range were some well-grown examples of *Ardisia crenulata*, about two feet high, and covered with beautiful Holly-like berries, the berry being the principal beauty of the plant. We also noticed a large collection of *Achimenes*, promising to be fine specimens when in flower; they were mostly growing in shallow pans about a foot in diameter, and tied out so that the pan is concealed from view when the plants are in bloom. Some of the varieties were in flower; *Tydæa amabilis* is quite distinct in colour, and worthy a place in every collection; in the same

house several seedlings of last year were growing, many being dark spotted kinds of the gigantea class. We also noticed a large collection of Gloxinias, strong thrifty plants, but not yet in flower; several seedlings of the erecta class were among them.

In another house adjoining were several plants of the *Thunbergia laurifolia*, a variety raised by Mr. Ingram some few years since from a packet of seeds sent him from India, and as a winter-flowering plant it will be a great acquisition, as it has been found in these gardens to grow and flower exceedingly freely through the winter months. It will do well under pot culture when grown in a soil composed of peat and loam. On a back shelf was a great quantity of hybrids between *Crassula coccinea* and *Rochea falcata*. We imagine these will be very interesting when in flower; and, judging from the various habits of the young progeny, something new may be expected. Doubtless this class of plants is capable of being greatly improved by cross fertilisation. We were shown a fine healthy stock of the *Petunia imperialis*, from cuttings struck early last autumn, and intended for bedding; no spring cuttings are used in these gardens for that purpose, owing to their not flowering so freely as autumn cuttings; this was fully proved here last season. Several fine plants of the Princess Royal Geranium were in full flower; it was raised by Mr. Ingram, and is one of the best pink varieties, and flowers extremely well in pots at this season in a cool greenhouse; it is also an excellent kind for bedding.

The back stove is occupied with Orchids and Ferns, among which are a great many plants of *Adiantum cuneatum*, which is much used here for mixing with cut flowers in making bouquets, and is useful in the winter time, when flowers are scarce. A fine specimen of the *Goniophlebium subauriculatum* was growing in a basket suspended from the roof; it is a very graceful Fern, with long pendulous fronds. Several gold and silver Ferns were also observable; they are very beautiful, and well adapted for growing in small pots. Several Orchids were in bloom, among the most conspicuous were *Phaius Wallichii*, *Zygopetalums*, *Oncidium Papilio*, and *Dendrobium nobile*, which is a charming plant, and considered one of the most useful of the *Dendrobiums*.

The forcing department in these gardens is very extensive, and the crops of Peaches, Plums, Cherries, and Grapes are exceedingly good. Eight houses are used for the cultivation of Grapes; in the earliest house the fruit is now fast approaching maturity, and others are following in succession, all promising heavy crops of the finest fruit.

In a small house at the back of the principal range are Vines planted in a shallow border on a heated chamber. The treatment which Mr. Ingram adopts for these Vines is worthy of especial notice, as it is something new in the cultivation of the Vine; the experience of past seasons, and the present heavy crop, are sufficient to recommend it. Every season, as soon as the crop is used, which is about the middle of May, the Vines are cut down to within an inch or two of the soil, and a new rod grown during the summer, which will produce fruit the following season; by this plan a larger weight of fruit may be grown on the Vines, as the rod that produced the fruit is not required to bear again, but is replaced by a new one.

Nothing could be finer than the crops of fruit in the Plum-houses ; several sorts are grown, but the most approved kinds for forcing are the Victoria, Orleans, and Jefferson. The latter is an American variety of great merit. On the border of this house are some fine plants of Eugenia Ugni, four feet high, and showing well for fruit. There is an excellent crop of Peaches in the houses ; the earliest are now stoning, and others in different stages of forwardness, are intended to keep up the supply till succeeded by those grown on the open walls.

Cherries are extensively cultivated in pots, in two large span-roofed houses ; in the first house the fruit is now ripening, and will be succeeded by a splendid crop in the second house. The sorts grown are May Duke, Black Tartarian, Bigarreau, and Bigarreau Napoleon. Although the last-named sorts are fine Cherries, the May Duke is considered the best for forcing. Strawberries have been gathered for some time, and every available place in the forcing houses is now filled with them. One house, a half span and used as a late Vinery, is completely filled with them, with the exception of French Beans in a portion of the border. Some very fine fruit of the Prince of Wales and Grange's Seedling were ripe, succeeded by British Queen and some promising seedlings bearing heavy crops. French Beans are grown all winter, the present crop occupies the Vinery borders. Cucumbers are also largely grown, and at present there is a fine crop in some of the back houses on plants that have been fruiting during winter. Potatoes in pits are very strong and healthy, presenting no appearance of disease.

In the kitchen garden most of the crops appear to have stood the winter well, such as Lettuce, Cauliflower, &c. The early forcing Cauliflower, Alma, is a great favourite here. The Pea crop is looking well ; the earliest are sown close to the wall in front of the forcing houses, and in cold pits, they are now coming into bloom. We were much struck with a quarter of Broccoli—about an acre—the greater portion of the *true* Knight's Protecting, a sort that cannot well be surpassed for use at this season of the year : although an old variety, it is now nearly lost, and seldom to be met with *true*. Mr. Ingram has preserved the sort true for many years.

Nothing can be more cheering than the prospect of plenty in the hardy fruit garden. Every description of fruit tree seems to be literally covered with blossom, and a fine set of fruit on the earliest of the Peaches and Apricots. If the season should prove favourable to fruit culture, we hope, through the kindness of Mr. Ingram, to give our readers a report of this extensive department, when the suitable time arrives.

On walking over this extensive establishment, we are impressed with the fact, everywhere evident, of the economical and systematic arrangements introduced into every department. We can assure our readers no useless expenses are incurred here ; every operation is carried on with strict reference to the object sought to be obtained ; and while the thorough keeping of the whole is maintained in the most efficient manner, there are few private places more economically managed, or which produce such satisfactory results.

NOTES ON THE MONTH.

THE past month has been remarkable for the quantity of rain fallen, which in this neighbourhood has been very great, and sufficient to suspend operations on heavy ground. A few days were warm enough for a much more advanced period, as on the 30th and 31st of March, when we had heavy peals of thunder, with close warm air. The electric state of the atmosphere was followed by heavy storms of rain, hail, and snow, with sharp frosts on several occasions, which have continued more or less up to the 18th, from whence to the 21st the weather has been drier and more sunny, attended with a rising barometer. The general summary may be described as wet and cold, with very little sun for the season, and the prevailing winds west, north-west, and south. Vegetation has not, therefore, advanced so rapidly as we anticipated last month; still the Grass lands, owing to the absence of the dry easterly winds of March, are more than usually forward, and both autumn and spring corn have been benefited by the rains, excepting on cold heavy soils, where the yellow appearance of the crops betokens that dryness and warmth would have suited them better.

Our information as to the prospects of orchard fruits is conflicting; the general scarcity of the crops of Apples, Pears, and Plums last year would lead to the conclusion that the crops this year will be heavy; but we must bear in mind that the crops of those fruits (Apples particularly) were not only destroyed by the frosts, but suffered by the subsequent attacks of the moth-caterpillars (species of *Geometrae* and *Noctua*), which not only destroyed the young fruit but devoured the entire leaves also, and so completely denuded some orchards that hardly one entire leaf could be seen in June. The subsequent growth, we fear, ripened imperfectly, owing to the wet autumn, and therefore we cannot expect the wood and fruit-buds of trees thus visited to produce bloom. Garden wall-fruit trees, as Peaches, Nectarines, and Apricots, appear to have set an average crop of fruit; and Cherries, Plums, and Pears promise well. In some gardens Plums were visited by myriads of aphis, afterwards by mildew, and where such was the case the bloom appears thin.

The rain and cloudy weather will have benefited newly planted trees. Evergreens may yet be planted, and we are not sure we do not prefer the middle of May to any other season for transplanting Evergreen Oaks (*Ilex*), Hollies, and some Conifers, as Red Cedars and Junipers. There is no fear of the result, if you only take them just before the new growth commences.

G. F.

 BIGNONIA VENUSTA.

THE species of *Bignonia* are all beautiful, either in the shape of shrubs or climbers, and greatly improve our stoves and greenhouses. The well known *B. radicans* and its varieties are quite hardy, and will stand our southern winters trained against a south or west wall; but in the north they require some protection, or I fear but few orange-coloured

blossoms will wave in the autumnal breeze. Out of this beautiful family of plants I select for this article the lovely *Bignonia venusta*.

This splendid climber is an inmate of the stove, delighting in a temperature of 55° or 60°, and a slight degree of bottom heat; it only requires seeing in the acme of floral beauty to be admired. The flowers come in large panicles, and are of an orange hue, contrasting beautifully with the neat dark foliage which clothes the plant all the year round. This climber cannot fail to be a great acquisition, as it produces its flowers late in the season, and continues in a flowering state over three months, and sometimes longer if the stove is kept comparatively free from moisture, a humid atmosphere being injurious to the flowers when fully expanded.

This *Bignonia* is admirably adapted for covering trellises, walls, rafters, &c.; having tendrils like a Vine it will cling to any kind of support, requiring considerable space to run over—but must be duly attended to during the growing season, keeping the shoots neatly tied and well spread out on the trellis, so as to cover all vacant places, for if allowed to ramble wildly the flowers cannot be seen to advantage. In tying the shoots always leave five or six inches of their tops at liberty, for tying close to the point is apt to check their growth.

The most suitable compost for this *Bignonia* is equal parts of turfy loam and peat well mixed together, adding at the same time a good sprinkling of sand to ensure porosity. The bed or border should be well drained previous to the compost being put in (a point of the greatest importance to all stove and greenhouse climbers.) A young plant of the above may be some years before it flowers much; but once at a certain stage of maturity, it will flower regularly every season.

When once well established, it requires to be cut back every year—say in February or early in March, as the wood by that time will be well matured and the sap beginning to flow. In pruning, the spur system should be adopted as much as possible, as it is necessary there should be a good supply of young wood all over the plant, the blossoms being produced on the same; but avoid, if possible, cutting too hard into the old wood, otherwise it may be a long time before it breaks freely, and when it does break it is apt to grow too luxuriantly, thus exhausting the energies of the plant, making a quantity of strong shoots, not likely the first season to yield a single flower. The fine string-like shoots bear the most flowers—hence the use of the spur system.

To propagate this *Bignonia*, cuttings should be taken off the plant when about two or three inches long, leaving what is technically termed a *heel* adhering to each; these may be inserted in fine sandy soil in a pot; then, by plunging in a gentle heat and covering with a bell-glass, they will make roots freely. Another way is increasing this plant from eyes of the half-ripened wood, taking care not to injure the leaf; then put them in fine mould in a shallow pan, and treat them in the same manner as cuttings. Some of the *Bignonia* tribe (chiefly the deciduous kinds), may be propagated from eyes of the ripened wood, in the same way as Vine eyes.

BICTON, DEVON,

THE SEAT OF THE HON. LADY ROLLE.

FEW gardens have gained greater celebrity than those at Bicton. The extensive collections of plants, together with the favoured climate of that locality, have frequently been the subject of comment in gardening periodicals. The climate of Devonshire is considered by many so much more temperate than any other part of England, that to speak of a plant as being *hardy* there forms no criterion for any other part. The locality of Bicton is perhaps one of the most favoured in the county, and we think should not be considered a type; for we question whether plants sufficiently hardy to withstand the severity of our winters in the valley of the Exe, and many other parts of the county, would do so in other parts of England.

In passing from Exeter to Bicton the road leads over a hilly tract known as Woodbury Common, which rises some four or five hundred feet above the level of the neighbourhood of Bicton. From near the mouth of the Exe these hills take a circuitous direction, and terminate at the sea near Sidmouth, dividing that town, and sheltering Bicton in no small degree from winds on the north, north-east, and north-west points of the compass. From the summit of Woodbury Common the scenery is magnificent. To the right is the mouth of the Exe, on which the picturesque town of Exmouth is situated; and on the opposite bank of that river the towns of Dawlish and Teignmouth, with the irregular coast line to Torquay, are in view, presenting a variety of scenery of the most pleasing character. Directly in front of us the broad waters of the English Channel are exposed to view, and nearer the extensive park and grounds of Bicton. From what has been stated above it will be seen that this locality is most favoured for the growth of many somewhat tender plants, and we shall not be so much surprised to find that many plants requiring the protection of a greenhouse in less favoured situations are quite hardy here. The flower-garden at Bicton occupies the side of a hill which slopes to the south; at the higher, or north side, it is effectually screened by extensive ranges of plant and forcing houses, and on each side high hedges of the Exmouth Magnolia, which are again backed up with trees, protect it from unfavourable winds. Within the area of this garden many plants that are seldom met with out of doors flourish in great perfection. On a connecting wall at the higher part such plants as *Magnolia fuscata* and *Aloysia citriodora* (lemon-scented Verbena) attain an immense size, and are rarely injured by frost; on the lawn are several masses of Camellias, consisting of most of the leading varieties in cultivation; these grow and flower annually in great perfection. At the lower part of this garden there are several pieces of ornamental water, from which a narrow rivulet conducts the waste water through a portion of the valley which has recently been added to the flower-garden. On the margins of this rivulet the *Arundo Donax* is planted, and forms large tufts ten or twelve feet in height; this, with the *Gynerium argenteum* and *Bambusa falcata* (Himalayan Bamboo),

we observed in another part of the garden; these are all distinct looking plants, and are admirably adapted for such situations. I may here mention that two specimens of the Coniferous family are conspicuous objects in this garden; one, a beautiful spreading plant of *Cedrus Deodara*, which has attained the height of 35 feet, and has this season produced a quantity of cones. The other alluded to is a noble plant of *Pinus macrocarpa*, 50 feet high; this species is certainly one of the best for the improvement of park scenery, independent of its value as a timber tree.

The arboretum at Bicton is on a most extensive scale, and amongst the numerous families of plants there are many of great interest. The Coniferæ in particular form a very extensive collection, and many specimens of the rarer kinds are equalled by few in this country. The *Araucaria imbricata* is planted extensively; besides the magnificent specimens in the Pinetum, there is an avenue of this plant through a portion of the park; they are planted on mounds of earth, and are progressing favourably. Large trees of this *Araucaria* will doubtless form a very distinct feature, though we question their appropriateness for an avenue. A large specimen of this *Araucaria* growing in the Pinetum has for several seasons produced cones, and during the past season catkins, or male flowers, have been produced by another plant; we may therefore reasonably expect to hear of seed having been perfected in this country. The Piceas, of which we have many species deserving every attention, are now beginning to develop their beauties in these grounds. *Picea nobilis*, *P. grandis*, *P. Nordmanniana*, and *P. amabilis* are all most beautiful; the latter of these is a very distinct looking plant, and may be readily known from the allied species by its more attenuated and less rigid foliage. *Picea Webbiana*, which is so generally an unsightly object, in consequence of being injured by frosts after growth has commenced in the spring, forms in these grounds a most beautiful tree, 30 feet high, and at the time we saw it was covered with its purple cones; in this state it forms one of the most ornamental trees of the family. I may here state that this tree was annually injured by frost, and rendered as unsightly as any I have witnessed, until the last three or four years; during that time it has escaped, and furnished itself in the manner described.

To enumerate only the more beautiful of the Coniferæ at Bicton would occupy too much space, we must therefore only add that the collection is one of the most complete we have witnessed, and for a lover of the family there is ample to repay the trouble of a long journey.

The collection of deciduous trees and shrubs is very large; they do not, however, appear to have been arranged with any regard to an ornamental appearance, being planted for the greater part in separate genera, and are therefore more interesting as affording an easy comparison of their botanical peculiarities than for producing effect. In this respect the collection is very valuable, containing as it does complete examples of many genera of forest and hardy ornamental trees. The site selected for their growth, too, I think open to objection; it consists of a narrow strip of land, which takes a circuitous direction from the mansion and terminates at the flower-garden, a

distance by this route of about two miles—a turf drive passes the whole length, the plants being arranged on each side. In many parts the plants present a thin, meagre aspect, and certainly would be improved in appearance by the addition of a few well-arranged masses of evergreens. The portion of the arboretum devoted to the Coniferæ is not open to this objection. At this part the belt is much wider, and a deep valley passes through the centre, it is therefore everything that could be desired; the valley, moreover, affords the desirable inequality of surface so essential to the well-being of this family.

During the past summer a second conservatory has been completed at Bicton, forming a wing to the mansion at the east and west ends. The former of the two was completed, we believe, about twelve months ago. It is 80 feet in length by 60, and 20 feet high. The roof is on the ridge-and-furrow principle, and is glazed with rough plate glass. In the centre a basin is formed for the reception of a glass fountain, and from the roof are to be suspended Chinese lanterns, so that at night the house may be illuminated, and thus form a pleasant promenade during the winter evenings as well as by day. The borders of this house are prepared in a most efficient manner, and large Orange-trees which had been previously growing in another house with Camellias—where they had become too much crowded—were lifted, and although of a large size they do not appear to have suffered in the least; all of them were growing freely, and many were loaded with fruit. For the culture of stove and greenhouse plants there are several houses; of the former we noticed some good old-fashioned plants in a lean-to house, which also contained fine specimens of many choice Orchids. The *Renanthera coccinea*—a plant which seldom flowers under ordinary cultivation—has flowered annually for many years with Mr. Barnes; we believe the secret of his success with this plant is in adhering to the laws of nature, by giving it seasons of growth, maturation, and rest with native regularity. In a “Palm stove” we noticed some fine specimens of *Latania borbonica*, *Musa Cavendishi*, *sapientum*, and *paradisiaca*, with Cycads, &c.; also a fine old plant of *Papyrus antiquorum*, with a miscellaneous collection of smaller plants. A *Camellia* house, above alluded to, has this season received a thorough rearrangement; the plants are now placed in a single row, through the centre of a span-roof house, which is about 100 feet in length—they are exceedingly healthy, and will doubtless make a splendid display.

Mr. Barnes's success in the cultivation of the Pine-apple has long been a subject of comment. During the past summer a fruit of the Queen variety, somewhat over 6 lbs. in weight, has been exhibited by Mr. Barnes, and we observed other fruits of this variety, near perfection, that would fall little below that weight. In the erection of the pit for the cultivation of the Pine, Mr. Barnes appears to have been fully alive to the importance of securing a thorough command of the root temperature, as well as an abundance of light, heat, and ventilation. This pit is about 80 feet in length, and sufficiently wide to take seven rows of large plants, or about 16 feet. Unlike what is generally denominated a stove, this pit has no alley or walk inside, but the pit being span-roofed the plants are accessible on both sides; it is divided

into four or five compartments, which are each regulated with the greatest nicety by means of valves in the hot-water pipes. For bottom heat, hot-water pipes are laid in a chamber which is covered by slates. On this are placed about two feet in depth of leaves, in which the plants, in pots, are plunged. By adopting this plan the fluctuating evil of the common leaf bed is avoided, while at the same time a great amount of labour is saved, and the injurious effects of lifting large plants in and out of the pits avoided. Certainly, the stock of Pine plants at Bickton is the most healthy and well grown that we have had the pleasure of seeing for a long time.

O. P.

(To be continued.)

REVIEWS.

Report of the Committee of the Massachusetts Horticultural Society.

THIS Report has recently reached us, and from it we find that a Committee, or a set of judges, is appointed by the Society, to visit the principal gardens in the district, from the proprietors of which application may have been made for inspection, for the purpose of competing for prizes, as will be shown from the following extract from page 10:—

PREMIUMS AWARDED.	Dollars.
For the neatest kept, most attractive, and showy Flower Garden, to Hon. Joseph S. Cabot	20 00
For the second best to T. W. Walker, Esq.	10 00
For the best managed, most economically conducted, and well-kept graperies, to Mrs. Durfee.	20 00
For the most economically-managed, best cultivated, and most neatly kept pleasure grounds to Charles Copeland	20 00
For the best cultivated and most luxuriant vegetable department, T. W. Walker, Esq.	20 00
GRATUITIES.	
For the fine condition of his grounds generally, and especially for the grapery and flower department, to George W. Pratt, Esq.	20 00
To Mr. Young, Mrs. Durfee's gardener, for the fine and neat condition of his grass plats, lawns, and banks	10 00
To Hovey & Co., for their fine specimens of Pears and Strawberries, and a splendid bed of Japan Lilies	20 00

We need scarcely say that this plan is peculiar to America, and is not adopted in England. It seems, however, to work well there, and the observations of the Committee on each place they visited is given in detail. Some of their remarks have a refreshing quaintness not often found in the dry details of flower shows. For instance, at page 5, is a description of the Committee's visit to Mr. Allen's Lily-house, where

“Hanging on one side of the apartment, as you enter, is seen what at first sight might be taken for Indian trophies, or curiosities from Herculaneum, but which on a nearer approach we found to be old pieces of wood, from which grow out, like an excrescence, flowers or plants, drawing their only sustenance apparently from wood and air, entirely independent of Mother Earth, and

adhering to the wood with as much tenacity as a barnacle to a ship's side. In the same tank with the *Victoria Regia*, may be seen the African Lily, and in other parts of the apartment, various rare plants and flowers. The water in the tank looked green and slimy, like a stagnant pond; and the air though warm, seemed damp and uncongenial. We took our leave of good old Salem in the five o'clock train, well gratified with our visit."

The cultivation of fruits has for a long time received great attention from American Horticulturists, and we see that this Society makes this an important feature, and gives great encouragement to it. At page 18 is a report of the Committee on fruits, from which we take an extract, as it bears on a subject of greater importance than is invariably felt by many who are in the habit of planting fruit trees, without first ascertaining the fitness of the varieties to the locality. The report states:—

"As they make record from week to week, of their doings, it is for their dissemination of good to all, especially for those who cannot be present to witness the rich display of choice specimens of fruits offered, not only from the immediate vicinity, but often from thousands of miles within our outspread country—including Kansas, California, and Oregon. In this way we are enabled to compare specimens and quality, and judge of such varieties as have a local habitation; and it will not be denied but that there are some fruits which do better in the section in which they originated, while it is admitted that others may be improved by a change of location, though this seldom happens; yet the Bartlett (and some few varieties of foreign origin,) a widely disseminated Pear, seems to find in this country a more congenial climate than in the place of its origin. The Apples grown in Kansas, as presented for exhibition here, were mostly varieties which had originated in this section, such as the Roxbury, Russett, Baldwin, Hubbardston Nonsuch, &c., and though somewhat increased in size, they were equal if not superior to the same varieties grown with us.

"Of the fruits shown as grown in Oregon, we would specially mention the *Gloria Mundi* (Monstrous Pippin of Coxe), as exhibited by Daniel Denny, on account of its monstrous size, viz., 2 lbs. 5½ oz. avoirdupois weight. Specimens of the Sparhawk, weighing 27 oz., grown in Alabama, were shown by Messrs. Hovey, and, notwithstanding the size was so much increased over those grown in the locality of its origin, the flavour was not any the less agreeable."

In reference to the Barbarossa Grape, we find at page 21, that—

"In this present year (1856) this Vine has again fruited, and you have had bunches of this crop exhibited upon the tables of your Society. It is proper now to state, that this variety has been fruited two seasons in the neighbourhood of New York, and that good judges pronounce the Grape indetical with the Prince Albert.

"There are other Vines of the Barbarossa in this vicinity—one small bunch of a very few berries was produced upon one Vine. The Prince Albert has been extensively planted in forcing houses in this State, and the Vines have been removed on account of their unfruitfulness. In my retarding house it has usually yielded well, bearing large long bunches of two to four pounds weight. This year, it had not a Grape or a blossom, and a Vine still retained in the forcing house for experiment has not shown a fruit cluster for years. The Vines of the two, if not identical, have the same uncertainty of crop.

"There are three Grapes which have a very singular mode of growth, the Prince Albert, the Bishop, and Red Lombardy. If the Barbarossa is a distinct variety from Prince Albert, then there is a fourth. The Queen of Nice occasionally exhibits a tendency to the same growth. All these Grapes are late, requiring one or two months longer season than the Black Hamburgh, and great heat to mature them in perfection.

"These can be readily distinguished from the hundreds of other kinds, when in growth, by this singularity: the point or termination of all the young shoots being *turned down*, as if held in check by a rein. The Prince Albert has this peculiarity to the greatest degree, and the Barbarossa is so entirely like that I

can see no reason for believing them distinct. The Vine alluded to as bearing only a few berries had a cane of large size, the whole length of the rafter, in full health, and showing a correct picture of the Prince Albert, and of its customary barrenness.

“Possibly the Vines in New York are not true Barbarossa. If the Vines were selected when in growth, this peculiar habit may have led to error.”

Can any of our correspondents give any information on this point?

On the subject of mildew, Mr. Allen remarks, at page 22, that—

“The mildew seems to be the great drawback to the successful culture of the Grape in this country (America). Under glass, when it has been more and more troublesome, from year to year, (in my houses) it has been entirely subdued by constant applications of sulphur applied early to the floor of the house and repeated as often as it was washed in by water or disappeared by evaporation.”

It is now perfectly well known that sulphur is the great enemy of the Vine mildew; the American mode of applying it, however, appears an extravagant one, and must in many cases prove inefficacious. In this country the appearance of mildew on Vines is a matter of as little importance as the appearance of red spider; sulphur is their avowed enemy, and where proper attention is paid to the thorough cleansing of the houses, and dressing the Vines with sulphur and lime in the form of paint, and the precaution in houses previously infected to give a good dressing of the same to the flue or hot-water pipes, little need then be feared with regard to mildew. Vines on which it has become established may be freed from the pest in a short time by dusting every part affected with dry sulphur, repeating the operation at intervals of a few days until it quite disappears.

The following extract, in the form of a letter to the society, refers to another subject on which “doctors differ,” and we introduce it here to show that some of our transatlantic brethren are opposed to making Vine borders of dead horses, and agree with us in the construction of Vine borders.

“*To the Chairman of the Fruit Committee of the Mass. Hort. Society.*

“Winchester, U. S., January 1, 1857.

“Dear Sir,—Yours of Dec. 27th was duly received. In a note published in your last year’s report, I detailed what I believed to be the best method of training Vines in open culture, and also gave a description of my soil. Notwithstanding the coiling of my Vines around the stalks, and the severe root pruning given them some two years since, they still continue to make too much growth. I am satisfied that we have no soil in this climate suitable for the Vine, that is not already rich enough in those materials necessary to form leaf and wood. Especially is this true of Vines grown under glass. The system of making rich borders is derived from English cultivators, and is in direct opposition to the culture of the Vine in its *native* soil, and the wine-growing districts of Europe.

“This gluttony of the Vine has been growing from bad to worse, until in some instances borders have been literally filled with dead horses and offal from slaughter-houses.

“Something, however, of a return to first principles was found at the late exhibition in the Regent’s Park, where Grapes from Vines grown in nothing but common garden soil received the highest premium in competition with nearly one hundred of the best Grape growers of England.

“Vines, in pots, grown in a soil composed almost entirely of gravel and sand, without any animal manure, treated with silicate of potash and phosphate of lime, have borne large crops and ripened their fruit much sooner than those

grown in a rich compost. The fruit of these Vines was exhibited on your tables last March.

“As the object of nature is to reproduce its species, it follows that the great labour of the Vine is in maturing the seed. And just in proportion to the ease with which this is perfected will be the size of the pulp or fruit, and the time of ripening lessened. Such being the case, all stimulants not tending to *assist* the Vine in this direction *are injurious*; inasmuch as they stimulate the Vine to an unnatural growth of wood—a condition unfavourable to the production of fruit.

“Yours truly,

“E. A. BRACKETT.”

At page 25 we find an old acquaintance of our schoolboy days introduced. Here it is:—

“BLACKBERRIES.—Under the head of premiums awarded for this fruit, it will be seen that the High-bush has carried off all the premiums. The Lawton is a valuable acquisition, but without detracting at all from its merits your Committee would state that in their opinion, for general cultivation, the High-bush is altogether a superior berry, quite as large, of equal flavour, and possessing that all-important requisite for such a fruit, solidity, which enables the grower to take it to market in fine order, which he cannot well do with the Lawton. The Blackberry, according to Mr. Merriam, who has had great success in growing it, should be trained horizontally; this causes every eye to break, and the shoots are literally loaded with fruit; if trained upright they only break freely at the top.”

Why should not the Blackberry engage the attention of English horticulturists? What is to prevent there being an improved race of this fruit? Who will do this?

The Stanwick Nectarine has undergone its trial in the United States, and the new English Strawberries also. The report states, at page 25:—

“NECTARINES.—None worthy of particular mention have been shown, except the Stanwick, exhibited by H. H. Hunnewell, to which was awarded the Society's silver medal. If others are as successful in growing this as has been Mr. Harris, gardener to Mr. H., it will probably be grown to the exclusion of most other varieties.

“STRAWBERRIES.—The Jenny Lind, a seedling raised by Mr. Fay, having proved an early and prolific bearer in the hands of others than the originator, the Committee awarded to Isaac Fay the Society's Special Prize of the Lyman Plate, valued at fifty dollars, for the Jenny Lind, as the best seedling after three years' trial.”

“The past season has been prolific in the introduction of new and valuable varieties from abroad, amongst which may be mentioned Sir Harry, Admiral Dundas, and Sir Charles Napier, shown by Messrs. Hovey, as the leading and most desirable of some twenty-five varieties of recent introduction, the Admiral Dundas, the largest of the above named, requiring only about eighteen to the pound. Sir Harry received the first prize, as being superior in flavour to any other variety of the season. The Admiral Dundas, on account of size, would have received the second prize, but that the contributor is one of the Fruit Committee, and declined assenting to the award made by all other members.”

Knowing as we do that our friends the Americans have for many years been the greatest customers for all the best European fruits, and the attention and care they bestow in raising and cultivating fruits of native origin—of which many *highly valuable kinds* have already found their way to our gardens—we need feel no surprise at the success they have attained in the culture of hardy fruits, for which the greater part of the American climate is admirably adapted. In fruit forcing they are

behind us, simply because it is only practised on a limited scale ; but, even with this, they are making rapid progress with Pine and Grape culture, and the interest with which they foster and encourage hardy fruits is quite characteristic of the national ardour and enterprise.

MR. CRAIGIE'S GAS HEATING APPARATUS.

WHY is it that horticultural erections on a small scale do not more abound as appendages to Suburban Villas ? The love of flowers surely is general enough to make such more numerous. In these days of cheap glass, indeed, of cheap *everything*, connected with such structures, it cannot be that the expenditure of the few pounds additional which they would cost is the obstacle. A very neat little span roof greenhouse can be erected in the present day for under 20%. A simple addition to a dwelling, and one which would protect a sufficient number of plants to enliven with flowers the dreary months of winter might be put up much below this.

Being a great lover of flowers myself, I cultivate them to a considerable extent ; but often when trying to persuade some of my friends to follow my example, and to nurse plants of their own such as they have admired in my greenhouse, the answer has been, " It is all very well for you. Though you may manage your plants yourself chiefly through the day, yet you keep a gardener who will see to their security from frosts at night, but what could I do ? Strong as my love of the pursuit might become, I do not think it would ever prove sufficiently powerful to induce me to descend into the stoke-hole and make up my fire as regularly every evening as would be required." This has been an objection to which a convincing reply has always been difficult. Whether you proposed flues or hot-water pipes still there remained the unpalatable stoke-hole, and my friend has continued to admire the flowers which he has seen in the possession of others, but to do no more.

It would seem that if the difficulties attending the preservation of the occupants of small greenhouses from frost could be done away with, such structures would multiply considerably.

At the recent exhibition most of us were much struck with the simplicity and apparent effectiveness of this apparatus, as displayed in the working model ; and I am quite convinced that in situations in which gas is available, through Mr. Craigie's application of it, a power is at command which will enable the amateur to boil, and to keep up to a sufficient heat, such an amount of water as will, with a well regulated apparatus, make all safe in a small greenhouse during any ordinary frost. If not mistaken in this estimate of its power, what a great boon this will be to possessors of small plant-houses. The gas to be supplied to the boiler is so easily under control, and unless there be a lodgment of water in the pipe, and the frost is allowed to get at it, or the gasometer plays a trick, the plants may at any time be left with confidence, and the owner may be satisfied that the frost will do no harm.

Gas, as a heating agent, has frequently been tried—generally, however, on a small scale. But hitherto the great obstacles to its successful application have been the large consumption, and the comparatively small results obtained. Until the discovery of the Bunsen burner the flame produced by the ordinary jet threw out but little heat, and through the only partial consumption of the gas the bottom of the boiler to be heated became so encrusted with the soot, that the action of the flame, not powerful in itself, was further much diminished in force. The Bunsen burner appears to consume the gas passing through the tube completely: this is proved by the absence of any deposit on the bottom of the boiler. Mr. Craigie has availed himself of this, and not only so, but his boiler being composed of a series of tubes, round which the flame plays on all sides, the greatest possible economy of heat is arrived at, inasmuch as the greatest amount of surface is exposed to its action. Another difficulty was that of preventing the deleterious effects of the gas upon the air; this is also satisfactorily met. A flue ingeniously contrived passes through the boiler, and any injurious influence is carried away through an aperture in the wall. Without wood-cuts it is impossible to give a precise idea of the plan. Any of your readers who may desire further particulars will doubtless be able to obtain them through the agents for Mr. Craigie's patent. I would merely add that some five or six of these apparatuses have been at work during the late winter and in every case satisfactorily, one instance being a greenhouse fifteen feet by twelve feet in which the glass comes down close to the ground, placed in an exposed situation. This was kept perfectly free from the effects of the hardest frost, with three burners at most to get the water up to the required temperature at first, and after that two burners to keep it so.

As to the consumption of gas, the size ordinarily used is No. 2 jet; this consumes from two and a half to three feet of gas per hour, the difference in amount depending upon the higher or lower pressure of the gas. It will easily be calculated what the expense for twenty-four hours would be,—here the gas costs about six shillings per thousand feet. It has been stated that the expense of the apparatus would be about 12*l.*; this estimate may be correct if copper were the principal metal used, there seems however, to be no reason why iron should not do as well, in which case the cost would be diminished one half.

The application of the gas in the way above mentioned, is not, of course, confined to greenhouse purposes, it is equally well suited to lobbies, &c. I have seen also some very neat library tables with hot water pipes underneath, which are calculated greatly to increase the temperature, and in this way are a great addition to the comfort of a room of that description.

Edinburgh.

C. K. S.

PLANTS EMPLOYED AT TRENTHAM FOR DECORATIVE PURPOSES.

THE following is a list of plants which are at this time useful for decorative purposes in these gardens. Among the flowering plants there

is nothing more beautiful than the *Meyenia erecta*, which we find to be a free flowering, as well as one of the most elegant of hard-wooded plants. Geraniums, Calceolarias, and Fuchsias are now beginning to come into bloom, and will help to vary the collection.

ORCHIDS.

<i>Aerides odoratum</i>	<i>Oncidium flexuosum</i>
<i>Lycaste aromatica</i>	„ <i>luridum</i>
<i>Maxillaria graminea</i>	„ „ <i>guttatum</i>
<i>Oncidium altissimum pictum</i>	„ <i>ampliatum majus</i>
<i>Dendrobium nobile</i>	

STOVE PLANTS.

<i>Ardisia crenulata</i>	<i>Canna iridiflora</i>
„ „ <i>alba</i>	„ <i>Warczewiczii</i>
<i>Allamanda neriifolia</i>	<i>Ixora coccinea</i>
<i>Begonia nitida</i>	<i>Alpinia nutans</i>
„ <i>fuchsioides</i>	<i>Euphorbia jacquiniflora</i>
„ <i>Prestoniensis</i>	<i>Clivia nobilis</i>
„ <i>parviflora</i>	<i>Amaryllis</i>
<i>Strelitzia reginæ</i>	<i>Achimenes (various)</i>
<i>Torenia asiatica</i>	<i>Gloxinias</i>
<i>Russelia juncea</i>	<i>Lantana formosa</i>
<i>Meyenia erecta</i>	

GREENHOUSE PLANTS.

<i>Cantua dependens</i>	<i>Polygala myrtifolia grandiflora</i>
<i>Genista aetnensis</i>	<i>Ceanothus dentatus</i>
<i>Hovea Celsi</i>	„ <i>papillosus</i>
<i>Eutaxia myrtifolia</i>	<i>Correa longiflora</i>
<i>Mitraria coccinea</i>	<i>Habrothamnus elegans</i>
<i>Cytisus fragrans</i>	<i>Acacia Drummondii</i>
„ <i>racemosus</i>	„ <i>grandis</i>
„ <i>filipes</i>	„ <i>pulchella</i>
<i>Wistaria sinensis</i>	„ <i>marginata</i>
<i>Calla æthiopica</i>	„ <i>linifolia</i>
<i>Deutzia gracilis</i>	„ <i>armata</i>
<i>Aphelaxis purpurea</i>	Indian Azaleas
<i>Helichrysum humile</i>	Camellias
<i>Eriostemon cuspidatum</i>	Ericas and Epacris
<i>Tropæolums</i>	Primulas
<i>Polygala Dalmaisiana</i>	

PLANTS WITH VARIEGATED FOLIAGE.

<i>Cissus discolor</i>	<i>Bromelia variegata</i>
<i>Aphelandra Leopoldi</i>	<i>Caladium pictum</i>
<i>Croton variegatum</i>	<i>Tradescantia discolor</i>
<i>Dracæna terminalis</i>	<i>Maranta zebrina</i>
<i>Aspidistra elatior</i>	„ <i>bicolor</i>
„ <i>variegata</i>	„ <i>divaricata</i>
<i>Pandanus javanicus variegatus</i>	

The arrangement of the ribbon borders here varies every year, but I shall give you a list of the plants composing the lines of colour which, in my opinion, are the most effective. They are, too, as readily obtained as any we have tried, as there are some of the sorts hardy, others nearly so, while those which are tender are now so cheap that most people have them.

The principal border is 12 feet wide, and slopes slightly to the south, which assists to give effect, as there is something pleasing in gradation of height, when well carried out.

- 1st Row, towards the walk—*Saponaria calabrica* and *Myosotis* mixed (pink and blue).
 2nd „ *Geranium Baron de Hugel* (dwarf scarlet).
 3rd „ Double row of Golden Chain *Geranium*.
 4th „ *Lobelia speciosa* (blue).
 5th „ Double line of *Calceolaria Kayi* (dwarf yellow), and Brilliant *Geranium* every third or fourth plant in each line.
 6th „ *Petunia Shrubland Rose* and dark orange *Calceolaria*, alternately.
 6th „ *Geranium Trentham Rose* and *Pyrethrum album*, alternately.
 8th „ *Mignonette* and *Nemophila*, mixed.

The border is edged with a strong Box edging, which is the first line, as it enters into the composition when viewed from either end, and makes a very good part of the whole, being green—then the blue and bright pink, mingle charmingly—then the golden band, harmonizes well with the former, and also with the blue behind it—the yellow, although always striking at first, becomes too violent, if I may so term it, after a time, and so I throw in a dash of bright scarlet into this line of colour, which is made broader purposely, to admit of a better blending of the scarlet with the yellow;—the Rose *Petunia* is the next, and this is improved by having some plants of the dark orange *Calceolaria* with it. The *Trentham Rosy Scarlet Geranium* is perhaps the best line of all, as the fine massive trusses of this soft rosy scarlet are so much admired. The *Pyrethrum album* is planted alternately with this, as it flowers early, making a distinct line of pure white for a month or five weeks before the *Geranium* masters it, and when the *Geranium* flowers begin to mingle with the white the effect is very good, being a “*strawberry*.” The *Mignonette* and *Nemophila* are to fill up behind the *Geranium*, and complete the back of the border by filling in between the stems of the *Geranium* and the Box edging; this last line is not seen from the front, being low, but it is necessary, as there is a small gravel path behind the border.

It will be seen that my aim has been to produce harmony of colour rather than violent contrast, although perfection in this with flowers is not easily attained.

The arrangement of another border, only 10 feet wide, with a walk on each side of it, and consequently sloping from the centre to each walk, is as follows:—

- 1st Row.—*Forget-me-not* and common *Musk*, alternately.
 2nd „ *Mangles' Geranium* and *Scarlet Verbena*, alternately.
 3rd „ *Brown Calceolaria* and *Trentham Rosy Scarlet Geranium* (the last named only every third or fourth plant.) This must form a broad line, as it is the centre of the border; the other side to be the same as above.

I may add that the effect of this border is very bold and good, and much better than when more lines of colour are used.

For a narrow border of 4 to 5 feet, a pretty arrangement may be made with the following:—

- | | | |
|------------------------------|--|---------------------------------|
| 1. Variegated <i>Alyssum</i> | \| | 3. Golden Chain <i>Geranium</i> |
| 2. Blue <i>Lobelia</i> | \| | 4. <i>Baron de Hugel</i> ditto |

For a circular, triangular, or square bed, the following arrangement is effective, and particularly rich :—

- | | | |
|----------------------------------|--|--------------------------------------|
| 1. Blue Lobelia | \| | 3. Orange Calceolaria, 2 rows |
| 2. Golden Chain Geranium, 2 rows | | 4. Flower of the Day Geranium, 2 do. |

The middle of the bed should be filled up with Purple Nosegay Geraniums, having the taller plants towards the centre.

This arrangement has been much admired here.

G. F.

SHRUBLAND PARK.

MR. FOGGO has again kindly favoured us with lists of plants now in bloom at Shrubland ; they do not differ, however, very much from those given in our last number, at page 123. In his list of forced flowers we find the following, viz. :—Indian Azaleas of various kinds, both in the shape of standards and dwarfs ; Orange trees, in fruit and flower ; Camellias of different sorts ; hybrid Rhododendrons, and also such kinds as Gibsoni, Edgeworthi, ciliatum, and Dalhousieanum ; Deutzia gracilis, both standards and dwarfs ; Lilacs, Syringas, Geraniums of various sorts, such as Album multiflorum, splendens, Crimson King, &c. ; and different kinds of Roses, Callas, Weigelas, and bulbs.

HORTICULTURAL SOCIETY.

APRIL 7.—J. J. Blandy, Esq., V.P., in the chair. Twenty-four new Fellows were elected. A letter from the chairman, commending in high terms Mr. Thomson's (of Dalkeith) triple retort boiler was read. It not only performed its work better than any other boiler with which it was put in comparison, but it also consumed a smaller amount of fuel. Desirable qualities like these cannot fail to bring it into general use. We had an opportunity of inspecting one of these boilers at Dalkeith Park this summer, and were much pleased both with its construction and action. The exhibition of plants on this occasion was good. Among Camellias, Storyi, from Messrs. Veitch, attracted considerable attention ; it is an excellent variety, in the way of imbricata. Among Azaleas there was nothing particularly new ; we observed well bloomed plants of Iveryana, rosea elegans, carminata, and a semi-double white kind called magnifica. Cut Roses were shown in boxfuls by Messrs. Paul and Mr. Ingram, gr. to J. J. Blandy, Esq. ; they comprised some of the best sorts, such as General Jacqueminot, Jules Margottin, Madame Fremion, Prince Leon, Gloire de Dijon, Devoniensis, Souvenir de Malmaison, and Vicomtesse Decazes. These are too well known to require any comment. Mr. Snow, gr. to Earl de Grey, sent a charming bouquet of the pale yellow Rose called ochroleuca, an

admirable sort for pot culture ; it blooms most abundantly, and when about half blown nothing can exceed the beauty of the blooms. Mr. Low, of Clapton, had a new deep yellow climbing Tea Rose from South Carolina, which looked as if it would be an acquisition. Its colour is very striking, and the blooms are of good size ; but as exhibited not quite so perfect in shape as could have been wished. It had, however, been so much injured from travelling that no correct opinion as to its merits could be formed. It was called Isabella Gray. Of Orchids there were some good specimens from Messrs. Veitch and others. The most conspicuous was a plant of *Dendrobium densiflorum* from the Bishop of Winchester. It was nearly three feet in diameter, and had upwards of forty bunches of flowers on it. A large and excellent collection of Hyacinths, early Tulips, and other plants came from Messrs. Henderson, of Pine Apple-place. Among stove and greenhouse plants from Messrs. Veitch was a beautiful example of *Acacia Drummondii*, one of the handsomest of that genus. Messrs. Lee and Cutbush also contributed to this section of the exhibition. Of *Hederoma tulipiferum*, figured by us at p. 193 of our volume for 1855, there was a beautiful specimen, well covered with its pretty drooping brown streaked bells. Cinerarias were exhibited in great variety by Mr. C. Turner, of Slough, the best of which were Baroness Rothschild, Lady Gertrude Vaughan, Régalia, Prince of Wales, Lady Peel, Optimum, Rose of England, Sir C. Napier, Ruby, Earl of Clarendon, and Mr. Edwards. These were finely grown plants.

Among plants from the Society's Garden were the double white-blossomed Chinese Peach, a class of plants to which there have recently been some handsome pink and crimson-coloured additions ; *Forsythia viridissima*, a red *Camellia* introduced from China some years ago by Mr. Fortune, and inclining to be hexangular in its blossoms, and the white and red-flowering Currants.

Among fruits, there were some good Pine-apples, a dish of new Black Hamburgh Grapes from Mr. Forbes, of Woburn, some good Keens' Seedling Strawberries and American Cranberries ; the last were from Mr. Cockburn, of Kenwood, who strongly recommended that they should be grown to the extent of half an acre at least in all grounds connected with every workhouse in the kingdom ! Mr. Tillyard had a trayful of well-preserved Beurré Rance Pears, and some remarkably good vegetables of foreign and English growth came from Mr. Lewis Solomon and Mr. Blandy, of Reading.

Cones of *Abies Kæmpferi* were exhibited, and along with them was a letter from Mr. Fortune, recommending this new Larch to the attention of English planters. He stated that its timber was excellent, that it grows rapidly, and that it would form an ornament of much importance to our English landscape. Lady Dorothy Neville exhibited specimens of anatomised leaves, ingeniously decorated with coloured designs, such as few have taste or skill enough to execute. In their way they were really beautiful.

CALENDAR OF OPERATIONS.

Auriculas.—As soon as these have done flowering give them a good fumigating before placing them out of doors, to rest, as it were, after their bloom. Moderate rain will not injure them, but avoid wet in excess by placing pit lights over the plants during heavy rains.

Azaleas.—These will now be in all their beauty, and truly are they worth whatever labour is bestowed on them. Shift any that require a larger pot, and pick off the seed vessels as they go out of bloom. Any that are wanted to flower early next season should be encouraged to grow by keeping them in a rather warm moist atmosphere, and syringing frequently. Keep a sharp look-out for thrips, and fumigate immediately you discover any. Young growing plants should have plenty of air.

Camellias.—When these are nearly done growing raise the temperature, to assist the formation of flower-buds.

Carnations and Picotees.—Cut away any dead foliage as it may appear, and permanently stake the plants towards the end of the month. If water is required, choose a mild day for administering it.

Cinerarias.—As these go out of bloom place the plants upon a cool shady border to produce cuttings, which should be taken off and struck in the ordinary way. Seed should now be sown, and a careful selection be made of the seedlings that have bloomed, for trial another season: the criterion should be—flowers of good habit, with wide petals and striking colours. Too many select seedlings that are quite worthless, merely because they are almost as good as some second-rate named varieties they may possess, forgetting that it is indispensable they should be equal to the best already out, and also to be of a new colour, or an improvement on existing colours.

Cold Frames.—Whenever there is no danger to be apprehended from frost, the lights should be left off these at night as well as day, where they contain established plants. Spring-struck cuttings and seedlings should not be exposed too soon. As soon as any of the frames are at liberty they should be immediately got ready either for the growth of tender annuals, plants, &c., or for Cucumbers and Melons.

Conservatory and Show-house.—There is no lack of plants in flower at this season to keep up the display here. Forced Roses, when well done, are a great acquisition. Keep down insects of all kinds; they are in general troublesome at this season. Persevere in keeping every plant, pot, and place most scrupulously clean. Attend to the regulating and tying of climbers. Remove the greenhouse plants as soon as they begin to go out of flower. Camellias, Acacias, Brugmansias, and other plants in beds, should now be well watered; a little weak liquid manure occasionally will do them good. Attend well to the watering of every plant; do not overdo it—at the same time let nothing suffer for want of it. Give plenty of air; a little may be left on at night towards the end of the month, if the weather be mild.

Cucumbers.—See directions in previous Calendars.

Dahlias.—Take advantage of all fine weather, when the soil is in

good condition, to prepare it for planting out when the time arrives. The plants should be repotted and kept growing, but not be drawn up weakly. If the soil is in good order, and healthy plants be possessed, early planting is not necessary, thereby avoiding the risk of frost by night.

Flower Garden.—All for this season depends on the arrangement of colours now decided on. If all plans are settled and the weather mild about the 20th of the month, not a day should be lost in getting the plants “bedded out.” If you have plenty of good plants of decided colours, of old and proved sorts, do not be too anxious to get beds filled with novelties, until you have first proved whether or not they are better than anything else in their class. We have often seen the effect of a flower-garden completely destroyed by the introduction of untried novelties. If the weather should be dry when all are planted, they should be well watered until they begin to make fresh root in the soil, but if the weather should be showery there will be no necessity for watering. Peg down such things as may require it, it prevents their being blown about by the wind. This is a good time to propagate herbaceous plants. Divide the roots of Russian and Neapolitan Violets. Sow Mignonette. Sow Wallflowers for flowering next season. Roll and mow Grass weekly. Roll walks frequently, especially an hour or two after showers; this “binds” the gravel. Give everything as neat a finish as possible.

Forcing Hardy Shrubs.—Plants that have been forced and that are done blooming may towards the end of the month be set out of doors. If any of them require shifting into larger pots, this is the proper time to do it; they should then be plunged in some airy, sunny situation, and should have every attention, in order to get the young wood well matured.

Forcing Ground.—Remove dung from late-forced Seakale; cut the crowns back, and dig the ground over with a fork. Towards the end of the month plant out at the foot of walls, or against banks of earth, Tomatoes. Plant Vegetable Marrows and Cucumbers under glasses on beds of fermenting material. Shift Capsicums into large pots. In cold situations, an easy and good plan to grow Sweet Marjoram and Basil is either to sow it, or, if raised in pots or boxes, to plant it in a frame where Asparagus has been forced; the frame can afterwards, in June, be removed and appropriated to some other purpose. Rhubarb and Seakale that have been forced may be planted out to force again. Sow French Beans for successional crops.

Fruit (hardy).—The dull wet weather we had the latter part of March and the early part of April has kept things backward. From this and the failure of the crops last year, we are likely to have plenty of fruit this season; there is a great abundance of blossom of all kinds. Apricots are an average crop with us; Peaches and Nectarines are setting well, so that we may set them down an average crop. With a few days’ sun Cherries, Pears, and Plums will be a perfect sheet of blossom; Apples will be equally full. British Queen Strawberries have everywhere in this neighbourhood suffered very much from the heavy rains of last autumn, coming immediately after the very hot weather

we had last August ; at least that is our opinion of what is the cause ; the mischief was done before the severe frost of last December set in, the frost could not at that time have injured them, as it was preceded by a deep fall of snow which remained on the ground during the continuance of the frost. The greatest attention must be paid to the disbudding, stopping, and regulating of the shoots of fruit trees ; nothing should stop these operations from being performed in due time, as much of the health, beauty, and productiveness of the trees depend in no small degree on their being properly carried out. Use every means to preserve the trees from the attacks of insects.

Greenhouse (Hard-wooded).—Many of the kinds of plants will now be in bloom ; use every means—such as shading, ventilating, &c.—to prolong the flowering. When done blooming every attention should be given, in order to get them to make and ripen good wood for the next season's flowering ; if this is neglected now, it is in vain to expect a profusion of bloom next year. The seed vessels should all be picked off when they are done flowering. As the young stock of plants will now be growing freely they should have abundance of air, and not on any account stand close together. They will need liberal supplies of water and constant attention, in the stopping and tying out of shoots, &c. *Soft-wooded Plants.*—All strong, well-rooted plants should be shifted at once into the the pots they are to flower in. Stop and regulate the shoots as they require it.

Kitchen Garden.—As the wet state of the soil, owing to the heavy rains in March and the beginning of April, prevented the seeds from being got in as early as usual, every exertion must be made now to make up for lost time. Get the hoe to work betimes, and keep it at work amongst all growing crops whenever the soil is sufficiently dry to hoe. Attend in proper time to the thinning of all crops. It had best be done at two different times ; the first time as early as possible after the plants are up, the second time when the plants are a good size—the last ought to be the final thinning. Parsley, Onions, Carrots, Parsnips, Beet, Turnips, Salsafy, Scorzonera, &c., all require proper thinning. Prepare trenches for early Celery. Manure and dig ground for Brussels Sprouts, Winter Greens, Broccoli of sorts, &c. Protect early Potatoes, whilst there is any danger from frost ; earth up the early Potato crops towards the end of the month. Plant out Cabbages, Cauliflowers, and Lettuces. sow Cauliflowers for autumn. Make regular sowings of Peas and Broad Beans ; sow Kidney Beans, Turnips, Beet, Parsley, Lettuces, Radishes, and Mustard and Cress. Destroy weeds the moment they make their appearance. Keep everything neat and orderly.

Melons.—Give air freely to plants on which the fruit is approaching maturity ; the supply of water should also be stinted in order to improve their flavour. Plants put out now on a good steady bottom heat will, with admitting plenty of air and keeping them rather thin of shoots, grow vigorously, and if the foliage is kept healthy they will bear fine fruit in August and September.

Orchard House.—Ply the syringe frequently to keep down red spider. Pay constant attention to the disbudding and stopping of the

shoots. Give liberal supplies of water, and occasionally a little manure water. Admit air abundantly.

Pansies.—Cuttings should now be put in as often as they can be procured, placing them in a shady border. They will strike much more freely now than during the hot summer months.

Peach-forcing.—As the fruit in the early house approaches maturity air should be abundantly admitted, and the atmosphere should also be kept drier. Keep a moist atmosphere in late houses by syringing mornings and afternoons, and well sprinkling the paths and floors with water.

Pelargoniums.—Careful and judicious shading, with great attention to the watering, will prolong the bloom of this beautiful flower. Plants for July should not, however, have much shade yet, or it will lessen the amount of colour in the blossoms. There will be but little to do but to attend to the blooming for the next two months.

Pinks.—Thin out the blooming shoots if large flowers are required; also remove the small side buds. If dry weather sets in, liquid manure may be used with advantage.

Pinery.—Water fruiting plants freely; attend to giving air according to the weather. Be particularly careful to see that they have a good regular bottom heat; keep up as moist an atmosphere as possible; when the fruit begins to ripen water should be withheld from them. As the young plants will now be growing freely they should have plenty of air and liberal supplies of water; see that they have a regular good bottom heat.

Pleasure Grounds.—Attend well to large trees recently transplanted, and see that they do not suffer in hot dry weather; shading and heavy syringing will assist them. Roll and mow Grass once a week; it will grow fast after all the rains we have had.

Stove.—Maintain a moist growing atmosphere; give liberal supplies of water; stop and tie out shoots; continue to shift all plants that require a larger pot; free strong growing plants, such as Clerodendrons, should have large pots and a good rich compost. Do not on any account crowd the plants; turn them round occasionally, so as to expose all parts of them to the light.

Tulips.—Here, in the south, these are fast coming into bloom, with every indication of a good one. Shade during the hottest part of the day, keeping them open morning and night.

Vinery.—Grapes that are ripening should have all the air possible in fine weather during the day, and a little should be left on at night; the atmosphere should be kept dry. Pay due attention to the succession houses; stopping and tying-down of shoots and thinning of Grapes are daily operations at this season. Keep the atmosphere as moist as you can.





Tea Rose

TEA ROSE ISABELLA GRAY.

(PLATE 127.)

WE have taken an early opportunity of introducing to the notice of our readers a representation of this charming new Rose, which bids fair to become universally popular.

The first intimation the public had that such a Rose was in existence was at the London meeting of the Horticultural Society, on the 7th of April last, when a plant in bloom was exhibited before the Society by Mr. Low, of Clapton. We quote the following report of the meeting, in reference to this Rose, from the "Gardener's Chronicle" of April 11. "Among this class of plants, however, the great attraction was a new deep yellow climbing Tea Rose from South Carolina. This was furnished by Mr. Low, of Clapton. The plant exhibited was, unfortunately, not in good condition for showing, having got greatly injured from travelling. It, however, indicated what a fine thing it is. It had upwards of 40 blooms on it, large and double, and nearly as fine in colour as that of the old double yellow, which nobody can flower. The new sort must therefore be considered as a great acquisition, should it continue to be a free bloomer."

We are indebted to Mr. Low, jun., of the Clapton nursery, for introducing this very attractive addition to the already beautiful family of Roses; this gentleman met with it when travelling in the United States, in the garden of a Mr. Gray, in South Carolina, who it appears had raised it and some others nearly similar, from seed. Mr. Low states that when he first saw it it was covered with flowers, and exposed to a burning sun without being injured in the slightest degree.

Our readers will have learned by the advertisement of this Rose for sale by Messrs. E. G. Henderson & Son, of the Wellington Nursery, in last month's FLORIST, that they have purchased the entire stock from the Messrs. Low & Co., to which we beg to refer our readers for further particulars; and likewise to the intimation, that as there appears to be three other Roses allied to this in this country under the name of Miss Gray, of whose comparative merits nothing is yet known, they will bear in mind that the Rose now figured, and advertised by Messrs. Henderson, is the one selected for purchase by Mr. Low, as surpassing all the others in his estimation. Mr. E. G. Henderson informs us that the old plant, having been cut down for stock, is breaking strongly, making a fine growth, and with remarkably handsome foliage.

GARDENERS' BENEVOLENT INSTITUTION.

THIS is indeed a busy scene ; and some of us are so ceaselessly whirled through life by the strong currents of our *immediate* business, that we seldom pause to reflect on the many questions which, while not directly in our path, lie contiguous to it on either hand. But when such matters force themselves on the mind, is it right to heave them back with cool indifference, or soothe the burning pain of thought by administering some intellectual opiate? We think not. Our mind, among other things, has been recently running over the past career of the Gardeners' Benevolent Institution ; and while considering the whole as satisfactory, we must confess there appears much to rejoice at and something to sigh over. The necessity of such an institution had been long severely felt ; its constitution is unquestionable, its conduct praiseworthy. Perhaps we might not be able to endorse every clause of its rules, or approve every act of its management—our commendation is given from a broad point of view. Among the subscribers and donors in the list last issued will be found the names of about 180 noblemen and gentlemen, 170 nurserymen and their assistants, and 280 gardeners. It strikes us forcibly, notwithstanding the above figures, that the number of gardeners who subscribe is *proportionately* small. How is this? Is the Institution not of a character to meet their views generally, or have they not confidence in its management? We cannot for a moment believe this. Nor can we attribute the deficiency of numbers to want of means or want of sympathy on the part of the non-subscribers. A rich gardener may be an anomaly, but the subscription is small, and there are few bodies of men who have such kindly feeling towards each other. Have sufficient means been used to render the Institution, its objects and merits, universally known? Here, we think, we have the key to the mystery. As a people we require rousing, to entertain seriously any thought or action aside from the course of an immediate business, and perhaps the more peaceful our occupation the more difficult is this undertaking. We cannot therefore hold with those who complain of the spending of a few pounds in an annual public dinner, which is a demonstration bringing in its train more than an equivalent. Rather would we advocate a more stirring management, restless in its character, determined in its objects, a more thorough organisation, through which the advantages and merits of the Institution might be brought home to the heart and understanding of the many. If the country could be divided into departments, and the patrons of gardening, nurserymen, and gardeners be canvassed personally, much good might result. We know there have been and are some men earnest and energetic enough to undertake this task in their own locality, and we believe the number might be increased till the movement covered the length and breadth of the land. And this need be done on no false or artificial basis, but purely on the merits of the case. We have said a rich gardener is an anomaly ; and in many cases there is slender opportunity afforded of providing for the incapacitating ailments to which he is professionally liable, or for the wants of old age. Wages are proverbially low, and the humblest is expected to be a well-ordered

and a respectably dressed man. Few men administer more to the comforts, the elegant refinements, the innocent amusements of the wealthy, young and old. How greatly are the enjoyments of country life increased by the possession of a well-kept garden, and flowers mingle in every scene of festive gaiety and social intercourse. Those gay and fascinating Orchids, glittering in the exhibition tents at every flower show, whose perfumes fill the senses, and whose fantastic forms surprise and gratify the eye, are the result of his patient and persevering skill. Those splendid Roses, Pelargoniums, stove and greenhouse plants, have sprung from something more than common industry, something deeper than the ordinary veins of thought. Then turn to those Strawberries, Peaches, Grapes, and Pine-apples, produced in and out of season, and say whether an Institution for supporting the decayed members of such a profession is not deserving of the patronage and support of the wealthy. But while seeking the assistance of the wealthy we must not forget the great principle of self-reliance. If the nursery-men and gardeners have not great wealth to bestow, their mite is not the less needed, and their labour in obtaining subscribers may become a source of wealth. Are we going too far in assuming that the number of private subscribers will be regulated in some measure by the number of professional?

Before closing these remarks, there is one point on which a few words seem desirable. Notwithstanding the flourishing state of the Institution, we fear that unless some greater effort be made there will, from the working of natural causes, soon be small chance of any candidate obtaining relief from the funds who has not previously subscribed to the Institution. Alas! it is a cold charity that has nothing to bestow but in sources whence something has previously been received; yet we must confess that those who have held out a helping hand to others seem entitled to the first consideration. But we will not anticipate so hard a necessity. The approaching festival and election of pensioners will be a well chosen point of time for the many who have not yet supported the Institution to come forward and place such an event beyond the reach of probability.

A SUBSCRIBER.

[We are glad our correspondent has thus so opportunely brought the claims of the Gardeners' Benevolent Institution before the public. He is well known as a leading horticulturist and author, and we wish he had given his name to the well-timed remarks he has offered. The claims of this noble Institution should not go unregarded by those who have the means of helping it and are identified with gardening. All subscribers of *one guinea* are entitled to as many votes as there are to be *elected* candidates at each election. A difference of opinion has been expressed occasionally through the gardening press as to the utility of the annual dinner. Those conversant with the working of it know full well that it is the source of considerable revenue to the Institution, and that subscriptions ranging from £200 to £300, or more, have been collected at each dinner; and we venture to assert that not £20 of this amount would have accrued to the society had it not been for the dinner. Some have taken alarm because the balance sheet has shown a loss on

the dinner of say some £8 or £10 in expenses necessary, but that need not be detailed here, as they are perfectly justifiable, and essential to the getting up of a successful dinner for the purpose of increasing the funds of the institution. What, then, is the trifling loss of these few pounds, compared with the great increase to the funds from the subscriptions? This annual gathering of the friends of the Institution is the means of also bringing together many new friends and supporters, and keeps alive the interest of the Institution among those who are truly the "working bees of the hive." The dinner, this year, under the presidency of Mr. Sheriff Mechi, will be a success, we are certain, supported as he will be by an influential body of stewards, and many of the leading members of the nursery trade and patrons of horticulture, and much credit is due to Mr. Cutler, the hard-working secretary, for his great exertions and tact displayed in carrying out the duties of his office.]

HINTS ON LANDSCAPE GARDENING.—No. III.

KENT and Bridgeman were followed by Greenway and Brown. The latter commenced his labours as a landscape gardener somewhere about the middle of the last century, previous to which he had been head gardener at Stowe, the princely residence of Lord Temple, and more recently of the Dukes of Buckingham. Brown was very popular in his day; possessed great shrewdness and tact, and made a large fortune by his profession, having been more extensively employed than any other artist, either before his time or since; but, unfortunately, his works proclaim his want of genius and true artistic knowledge. Let us take the three component parts of scenery—wood, water, and the surface ground—as laid down by Brown, and existing at many places to the present day, and we shall find his artificial lakes, with one or two exceptions—where, by damming up the gorge of a valley, and allowing the water to occupy the natural bottom, a good effect was produced—mere serpentine-shaped canals, swelled out here and there to give breadth, but with formal outlines and bald unbroken shores: his plantations were either in the shape of round clumps, formal and monotonous in the extreme, planted often with only one kind of tree, and varying only in size; or they formed a narrow, continuous belt, encircling the demesne or park, and equally as objectionable as the clumps. The limited comprehensiveness of Brown's ideas as to what constitutes natural scenery allowed him no scope for variety, and became stereotyped in his mind's eye; and hence, under nearly every circumstance in which he gave designs, the same principles were laid down; until the places he laid out or improved became mere *fac similes* of each other, varying only so far as the natural features of the places themselves produced variety. In Brown's designs we fail to detect anything like picturesqueness, or any natural scenery of a tamer character; his water wants more irregularity of outline and bolder shores, to replace the sloping banks which in all his designs prevail; and where this was not practicable, the margins broken by gravel, rocks, or suitable water plants. His plantations want both

intricacy and variety ; his clumps, always formal, were rarely connected with each other, or with his belts of planting, and the outlines of his plantations were curves or segments of circles, of a greater or less radius, and have consequently a monotonous appearance. So far as we are judges, the art of massing forest trees, so as to produce irregularity of outline and depth of light and shade, was not understood or unpractised by Brown, as the same objection may be taken against his surface lines, where easy slopes and levels everywhere prevailed, and where the breadth and repose of his grass lawns were frequently intruded upon by his circular clumps of trees. We have seen several places laid out by Brown, where the natural features of the situations themselves were bold and striking, but which had been partly destroyed by the introduction of the ever-recurring clumps and formal water. Only the other day we witnessed the fine effect produced by sweeping down, *en masse*, several of these intrusive clumps (all Beech) in the immediate foreground of a nobleman's mansion ; not only by giving increased breadth to the park lawn, but by allowing the irregular outline of a fine old wood in the distance to come prominently into view.

Next came Repton, a gentleman of taste, and with an artistic eye to order, method, and propriety. Brought up originally to mercantile pursuits, he was, nevertheless, an accomplished scholar and gentleman—a clever artist with his pencil, and no less so with his pen. It is not surprising, therefore, that when he undertook the profession of landscape gardener, his position as a gentleman, added to the suavity of his manners, and the zeal with which he entered into a pursuit so agreeable to his tastes, should render him the *arbiter elegantiarum* of the fashionable world, in all matters pertaining to his profession—which included consultations in architecture as well as landscape gardening. Mr. Repton, in fact, became the adviser as well as friend of royalty and greater part of the nobility and gentry, and was fully occupied in his profession up nearly to the period of his death in 1817.

We must look at his works in our next.

M. A.

(To be continued).

NOTES ON THE AURICULA BLOOM OF 1857 IN THE NORTH.

THE backward season and cold easterly winds that have prevailed so much this spring were very much against the full development of the beauties of the finest sorts of our Auriculas, as nearly all flowers of very fine substance are apt to cup in this cold clime ; and this season, for want of that moist warm atmosphere so congenial to the blooming of the Auricula, this was particularly the case, and some of our flattest lying flowers had their petals very much twisted ; still, with that attention and perseverance so characteristic of the Scotch, in watching and protecting them, there was, generally speaking, a very good bloom. The following observations are notes of scarce or new flowers, and such as are not much known, some of which are great improvements on the old sorts, while *some are not* in my humble opinion, and they are

conscientiously given on their merits and demerits, as a beacon to the Auricula grower in search of *gems*. Should such be the case, my aim will be realised, and though it may be only small shot, still, until the great guns come forward to vindicate the position the Auricula ought to hold, I will continue to disturb them till our favourite gets the position it ought to have in the estimation of my brother florists.

Sir John Moore (Lightbody), green edge, with rich purple ground colour and rich orange tube, well proportioned, not very steady, but when in right dress a model. I find this variety is still scarce.

Lady Blucher (Clegg), green edge, of almost the same colours as Sir John Moore. The foliage is quite distinct, and whoever grows the one need not be very particular in having the other. This, as I saw it, was quite a gem.

Lycurgus (Smith), lively green edge, narrow enough in ground colour, which is of a reddish violet, good paste and tube.

Apollo (Beeston), green edge, dark violet ground, good paste, tube pale yellow; a fine circular flower, and would have been "No. 1" if it had a bright orange tube, as no Auricula can be perfect without that.

Admiral Napier (Campbell), rich emerald green edge, blush ground, fine paste, slightly angular, good bright orange tube, and a finely proportioned flower; not yet sent out; will be an acquisition to any collection.

Unique (M'Lean), grey edge, violet ground, paste fine but angular; finest tube, being of a bright orange; pip apt to crimple; has a noble appearance.

Maria (Chapman), grey edge, light violet ground, paste good, but not very circular; tube yellowish green, well proportioned.

Sophia (Chapman), grey edge, violet ground, paste fine and circular, tube pale yellow; a well proportioned flower.

Richard Headley (Lightbody), grey edge, reddish violet ground, circular paste, and orange tube, pip very fine form; a late blooming but very fine sort.

George Lightbody (Headley), grey edge, deep dark violet ground, fine circular paste, very fine orange tube; a particularly fine flower.

Mrs. Headley (Lightbody), white edge, dark violet ground, fine paste, tube pale yellow.

Countess of Dunmore (Lightbody), pip round but crimped, edge white, ground colour reddish maroon, paste fine, good orange tube; a variety, but no improvement.

Meteor Flag (Lightbody), self, bluish purple, watery looking paste, tube pale yellow; not a flower worthy of the raiser.

Blackbird (Spalding), dark maroon self, a particularly fine circular dense paste and tube; should be in every collection, as it is decidedly one of the best, if not the very best, self we possess.

Sir Colin Campbell (Lightbody), well worthy the reputation of the raiser. This of all self Auriculas is so fine that it is not easily forgotten after one has seen it. It cannot be sent out for a few years, as it is only the second season it has flowered; colour scarlet crimson, very rich, particularly fine paste and tube.

Bessy Bell (Spalding), a self in the same class as Blackbird, but not to be compared with it.

Metropolitan (Spalding), purple self, very smooth petal, paste watery, tube pale yellow; a thin flimsy looking flower.

Adonis (Headley), beautiful plum, and nice smooth petal, the only good properties it possesses.

Eliza (Sim), reddish purple, paste narrow, pale yellow tube; no great thing, only new.

Mrs. Sturrock (Martin), reddish crimson, paste fine, tube yellow; a flower well worthy of extended cultivation.

Of old sorts, and which ought to be in every collection of Auriculas, there are,—in greens, Page's Champion, Colonel Taylor, Prince of Wales, Smith's Waterloo, Hogg's Waterloo, and Booth's Freedom; in greys, Complete, Lancashire Hero (Cheetham), Mary Ann, and Ne Plus Ultra; in whites, Glory, Earl Grosvenor, Delight, and Robert Burns—extra finely bloomed this year; Regular, Smiling Beauty, and True Briton; and in selfs, Othello, Eclipse (Martin's), and Jupiter.

Falkirk.

R. B.

ON THE CULTIVATION OF MELONS.

THERE are but few fruits cultivated in this country which require more care than the Melon; and this is more particularly the case when the fruit is required to ripen early in the season. In our younger days, when hot water was in its infancy, as regards its application for furnishing bottom heat to the Melon and Cucumber, the common three-light frame heated by stable dung was the only accommodation we could give these fruits, and it required an amount of labour, care, and patience, to obtain early produce from such frames as few of our younger managers have now an idea of. To cut Cucumbers in February and Melons in May was considered the acme of perfection in gardening, and yet, notwithstanding all the care with linings, covering up, &c., disappointment was more frequently the case than success. The substitution of low pits, heated by hot-water, and having the pipes flowing beneath the bed of soil to afford bottom heat, leave little room for failures, when properly constructed. Perhaps the best form for a working pit is one with a south aspect, and an unequal span roof, or the back sash made to open for ventilation, which must also be provided at the front, as a gentle but constant flow of air through the pit is one of the greatest means of success: these structures should be well glazed to admit as much light as possible. They need not be very wide; from 8 to 10 feet will be the most manageable width; a path inside next the back wall, some 2 feet wide, will allow 6 or 7 feet in width for the border, which should be deep enough to allow 2 feet clear of soil, and may be brought to within 2 feet of the glass in front. A house of this description, not elevated very much above the ground level at the front, and with the path inside sunk, may be very economically worked. It is important the trellis for training the Vines of the Melon plants be 18 inches from the glass. The foliage of some varieties is large and it should be a point that 6 or 7 inches should intervene between the upper surface of the leaves and the glass; this will allow a

circulation of air to pass over the leaves, and add much to keep these important organs in a healthy condition, besides preventing the tendency to burn or scorch to which some kinds are liable in the heat of summer.

Where Melons are required early and the above appliances are at command seeds may be sown the last week in November; at this season of the year considerable care and attention are requisite to secure strong plants for transferring to the pit in January; a fruiting pine-pit, stove, or orchard house will be suitable. I prefer to sow them thinly in bottom pans. When the plants are up, keep them near the light, and when sufficiently strong prick them into single pots, using pure loam for this in preference to any other compost. Early in January, the pit should be got ready for their reception, by cleaning the glass, interior, &c. With reference to growing the Melons in the open border, or pots, I give the preference to the latter for the first crop, as the plants are more under the control of the cultivator; if they grow weakly a watering with guano-water, well diluted, twice a week, will soon give the desired vigour; on the other hand, if they grow too rampant (which, however, is seldom the case) a short supply of water until the fruit is set will have the desired effect: the pots should be No. 1, or 18 to 20 inches in width, and should be well filled with the compost named below. The bed in this case will require to be filled up with leaves, previously fermented, or tanner's bark, in lieu of the soil, and the pots plunged two-thirds of their depth in the bed, and a sufficient width apart to allow about nine square feet of trellis to each pot.

After experimenting with a great variety of soils for growing Melons, I can only recommend a sound loam for their culture. If this is of a marly texture, so much the better; the Melon delights in this description of soil; but any surface loam—sufficiently heavy to be termed a clayey loam, to distinguish it from sandy loam—will answer. In some places it is difficult to get a soft tenacious loam, when I recommend a portion of marl or clayey loam to be mixed with the compost, as I have always found when light composts have been used, the foliage of Melons is very subject to become sickly and fail at the most critical point of their growth, *i.e.*, the last swelling of the fruit; when the energies of the plant are taxed to the utmost, any deficiency in the root supply, either through unsuitable soil or checks to the bottom heat, paralysing their action, will produce their effects on the foliage, and through them on the crop. It must be borne in mind that the perspiring powers of the foliage of Melons are very great at all times, and of course increased by the high and somewhat dry temperature given to Melons approaching maturity, when they part with moisture very rapidly; and unless this waste by perspiration is made good by an uninterrupted supply from the roots, the leaves quickly change to a sickly colour, and present a favourable opportunity for the red spider, which is almost sure to follow in the train to complete their destruction. It is almost unnecessary for me to add, that fruit ripening (when it ripens at all) under such conditions is entirely worthless.

Having stated my predilections in favour of a marly or clayey loam for Melon culture, I may add that in filling the pots or beds the soil should be made firm before planting; for however firm it may be

pressed into the pots or beds, the roots will soon penetrate it in all directions under a suitable bottom heat of about 80° , which should be regularly maintained during the whole growth of the plant; while the atmospheric heat should range from 65° to 70° night temperature to 80° and even 85° during bright weather by day.

Taking the management of the first crop, the sowing of which I detailed above, the plants should be tolerably strong and healthy by the middle of January, and as the soil in the pots will then have become warm, they may be at once planted one in each fruiting pot. For growing Melons in houses or pits on a trellis, they should not be stopped, but carefully tied to a stick reaching from the pot to the trellis, which when the plant reaches, train it in a single vine the length of the space allotted it, and then pinch out the point of the shoot; the plant will by this have become strong, and therefore the lateral shoots thrown out by stopping the leader will, in all probability, show fruit at two or three joints from the main stem. Train each lateral right and left, and when the young fruit is perceptible, stop the shoot at one joint beyond or above the fruit. Where any of these lateral shoots fail in showing a fruit stop them back to one or two joints, for the chances of a show from the second lateral produced, and also this will allow more room and light to those which have fruit on them. Three fruits will be plenty to allow to swell off on each plant. It is also desirable that they should not all be of the same age, and therefore when selecting the fruit to remain, keep the one which set the first, next the latest, and then an intermediate one; this will give a succession of fruit. The usual routine of cultivation which follows will be to mind the atmospheric temperature, above all guarding against sudden changes or draughts of cold air; a gentle circulation should at all times, even by night, be maintained, increasing it gradually as the state of the weather by day permits. Atmospheric moisture should also be supplied by frequent dampings of the floors, surface of the beds, and occasionally over the foliage after the fruit is set, but this must be applied with caution, as the leaves are very susceptible of injury, when water is thrown violently against them; and on no account, either by the syringe or in tying and stopping the vines, should the large primary leaves be injured if possible. Lateral growths, as they appear, will be pinched out, and the fruit, as it begins to swell, should be suspended in net bags, or on a small board fastened to the trellis. Water will be required frequently to pot-plants, using liquid manure more or less, according as the vigour of the plants seem to require it. I do not advocate Melon culture in pots, excepting for the earliest crop; and therefore for successional crops, the open bed of soil is to be preferred. When Melons are cultivated in this manner, it is a usual practice, and particularly when grown in dung frames, to make a hill or mound of earth the requisite height, on which to transfer the young plants, and afterwards to fill the surrounding space with compost as the plants increase in growth. Without offering any decided opposition to this plan, which has its advantages in dung frames, I see no good to be obtained where the body of soil is heated either by hot water pipes or fermenting materials, with hot water to supply top-heat, &c.; therefore the soil may at once be filled in, treading it firm.

I like the compost to be as dry as it can be procured, and prefer using it without any admixture of dung; if any is used, sheep's droppings or well-decomposed cow-dung in small quantities may be added, but when the soil is very stiff, well-broken brickbats or soft stones may be mixed with it in proportion of one barrowful to five or six of the compost; these will admit the passage of water freely through the soil and prevent its cracking so much when dry.

When planted in the open bed, the space allotted for training each plant must be greater than for pots, say 18 or 20 feet; I do not recommend a much larger space to each plant, for the reason that the Melon is very liable to disease when growing luxuriantly, and canker frequently commences with over-grown plants at the base of the stem, and destroys the plant; and as the same number or even a greater can be grown by allowing each plant a limited space, I prefer it to having fewer plants trained over a greater space. But in pits, where there is a larger space for the roots to grow in, the plants may be kept for a longer time productive, and therefore the stopping must be managed somewhat differently, and as soon as two or three fruits are set on each plant, pinch back the rest of the laterals to form a second growth, and select those Vines which show fruit for producing a succession, when the earliest fruit are cut, when the shoots producing them may be treated the same; and by these means, taking the greatest care that the leaves are preserved healthy, a set of plants may be managed so as to produce a long succession of fruit. To assist them in this, fresh surfacing of the bed will be necessary, and also liberal soakings of liquid manure.

The supply of water to Melons will always depend on the nature of the soil, and whether bottom heat is supplied from fermenting materials or hot-water pipes. With the latter and ample drainage the Melon will take a large quantity of water, particularly during bright sunny weather, and I have never found its application, even during the time of ripening, at all injurious to the flavour of the fruit; but then we ventilate very freely indeed.

When grown in dung frames (and very excellent Melons are so grown during the summer season) the materials should be well sweetened by fermenting and frequent turning before making up the bed. One half stable dung and tree leaves makes a good mixture, and one which will keep a steadier temperature than when made with dung alone; the same temperature and general treatment must be given. The young plants, in this case, will be stopped when grown a few inches in height; and as one or two plants will be turned out under the centre of each light, the shoots will require training to near the back and front of the frame before they are again stopped, when the lateral shoots must be spread regularly over the surface of the bed, and exposed as much to light as possible. When the young fruits are set, place them on a piece of tile or flat stone, to prevent them from coming in contact with the damp soil; indeed, I have frequently covered the surface of the beds with tiles (not slates) or bricks, and trained the Vines over them, but they will do very well without this, if attended to regularly with water. My observations earlier in this article as to the danger of sudden checks to the Melon must not be overlooked here, and timely attention to the

state of the bottom heat and the linings necessary to maintain the top heat of the frame at a suitable temperature, will at all times be requisite.

Melons should always be cut early in the morning and placed in a cool dry room for twelve hours at least before being eaten. Several varieties become insipid, however, if kept more than three or four days after being cut; but the precise time when to cut particular kinds, and the time they will keep, can only be acquired by observation. I append the names of the sorts I grow, for the information of those who may wish to make a selection.

Egyptian Green-flesh.—An old Melon of medium size, one of the best and highest-flavoured Melons even yet, when obtained true.

Victory of Bath.—This is an early Melon of good quality, rather small in size, ripens 8 or 10 days earlier than most varieties; flavour excellent.

Bromham Hall.—A netted green-flesh Melon of great excellence; good bearer.

Orion.—A Melon of recent origin, very large for a green-flesh, skin light green and netted. This is one of the handsomest Melons in cultivation, and its flavour is equal to its appearance.

Beechwood.—An oval, green-fleshed variety, sometimes netted, and at other times smooth, a very high-flavoured delicious Melon. The foliage of this variety is hardier than that of many kinds.

Trentham Hybrid.—This I grow for the autumn crops and it is deservedly prized for its flavour and long-keeping properties. Perhaps if only one Melon were grown this would be the one. Mr. Fleming, the raiser of this variety, has one or two other reputed fine seedlings, which, however, I have not grown.

O. P.

IMPERFECT DRAINAGE OF THE SOIL THE CAUSE OF MANY CONIFERS AND OTHER TREES NOT THRIVING IN CERTAIN LOCALITIES.

As the necessity of thorough and efficient drainage has been so often insisted on in the pages of the *Florist*, I need not at present say anything on that point, the more especially as it is a subject on which most people are agreed. It is, however, a fact that in planting, the thorough drainage of the soil is not always attended to until its imperative necessity becomes manifest from the results.

The worst of the matter is, that many trees and shrubs that are hardy are oftentimes pronounced too tender for certain localities, because, through inefficient drainage, they have not succeeded in these places.

I have often and often in various parts of the country heard persons (and practical men, too) make the remark that such and such a tree or shrub, as the case may be, will not succeed in this or that locality. In cases of this kind I have always found that the places selected for the experiment have invariably been what some people term snug sheltered spots; and I have always further found that in all cases of failure the draining has been inefficient. I have often been told, both by

gentlemen and gardeners since I came to live here that I could not get this thing to succeed nor that. One person gravely told me that Petunias would do no good in the flower garden; another that scarlet Geraniums would not succeed to my satisfaction; a third party said I could not get Rhododendrons ever to live; a fourth party said the attempt to plant Conifers was little less than foolishness: and so on.

But I have thoroughly convinced all these parties to the contrary. I have never in any part of the south of England seen in any flower garden more purity and brilliancy of colour, together with profusion of bloom, than I have seen here and in other flower gardens in Yorkshire. Rhododendrons grow here as freely as the common Laurel, and flower most abundantly; and Conifers of all descriptions succeed admirably where the ground has been drained, or where the subsoil is of a dryish porous nature.

The grounds here are extensive, and the soil various, from a light gravel to a stiff retentive clay. These circumstances offer great facilities for testing the hardiness of trees and shrubs. During the last nine years I have planted a great number of Conifers. *Pinus insignis*, being a favourite of mine, was among the first I planted; it is going on eight years since I planted the first two trees, and no trees could have done better than they have ever since: they have never suffered in the slightest degree from the severe frosts of the several past winters, though they are in exposed situations; they are very handsome young trees; the growths of the leading shoots last year are—of one 24 inches, and of the other 26 inches.

These having done so well, three years ago I planted two others, and these have done equally well. In April, 1856, I planted six trees, and of these two were put in places that I have since ascertained to be badly drained; and now for the result. These two trees, like all the others, made good growths last year, and towards the autumn the wood appeared ripe and all right; but during September, October, and the greater part of November, we had a great deal of rain, so that the ground where these two *P. insignis* were was completely saturated with water; before the land got dry we had, the first week in December, a heavy fall of snow and very severe frosts. On the morning of the 4th of December the thermometer registered 30 degrees of frost, and the effect of this severe weather on these two trees was that they were very much injured; many of the branches were killed back. The plants are at present as brown as possible, but show symptoms of life from the bottom part of the stem. Not far from these two trees was one in a much more exposed situation, but a considerably drier one; this tree suffered very little, while the large trees did not suffer in the slightest degree, but possess the beautiful intense green for which this tree is remarkable. All the other Conifers here escaped without the slightest injury, except one *Araucaria imbricata*, which is in a badly drained spot; this tree was a little browned.

I need not multiply instances to show the evil effects of inefficiently drained soil. All who plant choice trees or shrubs should spare no expense or labour to secure thorough drainage of the soil, as it is the point on which all hinges.

Stourton.

M. SAUL.

BICTON, DEVON,
THE SEAT OF THE HON. LADY ROLLE.

(Concluded from p. 147.)

FOR the cultivation of Grapes and Peaches there are several houses ; about four years ago an excellent range, 244 feet by 20, was erected in the kitchen garden, which is in three divisions, the end ones being occupied respectively by Vines and Peach trees. The Peaches—which have already nearly covered the space allotted to them—are looking exceedingly promising. Mr. Barnes' system of managing these trees, we think, deserves notice. As soon as the fruit is gathered, the trees are carefully examined, and any superfluous wood removed at once ; where the trees have made too strong growth, they receive a severe root-pruning ; if this growth has been less luxuriant, a smaller portion of the roots is removed ;—by this operation, growth is effectively checked, and however strong is always well-matured. The consequence is that the trees are furnished with excellent bearing wood, without the least symptom of gum or canker, which are the results of over-growth, and the precursor of premature decay. The middle division of this range is occupied by Fig trees, which previous to the erection of the house were trained to the garden wall. A strong iron trellis was placed and the trees liberated from the wall and trained towards the front of the house ; they are not, however, trained in regular order, but are allowed to branch out irregularly, the trellis merely serving the purpose of keeping them sufficiently near the light. The only artificial heat applied to this house is obtained from a couple of small stoves ; nevertheless, ripe fruit was gathered in May, and from that time there had been an abundant succession of fruit. At the time we saw them (in August), the trees were still full of fruit in every stage. Where an abundance of Figs is required, we should say that the system adopted by Mr. Barnes is the most profitable. I may here state that there is no artificial heat applied to this range, further than the stoves above mentioned ; I should state, however, that in any other locality than that of Bicton, a hot water apparatus would be of great service, and amply repay the outlay. The kitchen garden is replete with fruit trees and vegetables of the best quality. The walls are furnished with well trained trees of nearly all the most approved varieties of Peaches, Pears, Plums, &c. The walks are also flanked by Pear trees, either as espalier or on circular trainers ; this latter system of training Pear trees, of which the fruit keeps only a short time when ripe, is perhaps the most profitable that can be adopted, for by this means a greater number of trees can be grown in a given space ; by making a judicious selection, a better supply of fruit can be obtained than would be from larger trees. Mr. Barnes' system of working the kitchen garden, is peculiar, and for many crops undoubtedly very advantageous. Nearly the whole surface is thrown into ridges of about twelve feet in width, the crown of the ridge being about three feet above the common level of the garden. For crops of Lettuce, Spinach, Onions, &c., that are expected to withstand the severity of the winter, the situation is much more favourable than the level surface would be ; while the great depth

of soil effectually prevents summer crops from suffering during dry weather. On these ridges I have seen Cauliflowers, Cabbage, &c., planted so thickly that the surface was literally paved. The forcing of Seakale and Rhubarb is carried on in a private garden or "slip;" so that the litter and dirt attending this operation is comparatively out of sight.

In another portion of the slip, we noticed large quantities of single Russian, Neapolitan, and double purple Violets, which are grown very extensively by Mr. Barnes. The Russian variety is propagated partly from seed which is sown early in the spring, and afterwards transplanted; the other varieties are propagated from runners, or dividing the plants; these are planted out on shady borders in the spring, and by August they make strong plants, at which time they are transferred in quantity to turf pits, where thatched hurdles serve to protect them during the winter. Large quantities are also planted in front of the plant houses, where their perfume during the summer months is very grateful. The way in which they are secured from wet and cold winds in this situation is very ingenious. In front of the house in which it is intended to plant them, a row of rock-stones or bricks is placed sufficiently high to contain a depth of six or eight inches of soil, which consists of waste soil from under the potting benches; in this the plants are planted. From the edge of the stones to the front of the house, at about a foot above the plants, a piece of Nottingham net or thin gauze is tacked, which screens the plants from cold winds, and they are found to bloom as freely as if under glass.

The Apple orchard at Bicton during the past season presented a striking contrast to those in the neighbourhood, and in fact to every one I have had an opportunity of seeing during the past summer. In this the trees were loaded throughout the orchard with beautiful fruit; we do not recollect having ever seen a more abundant crop in any season. The plan adopted by Mr. Barnes will, I think, be new to many of your readers. It has been his practice for many seasons to collect large quantities of combustible refuse; such as old saw-dust, weeds, tree-leaves, small sticks, &c., and cart them to the orchard. Of these materials several fires are made in different parts of the orchard, which do not, however, burn rapidly, but are allowed to smoke and burn steadily for three or four weeks from the time the trees commence to blossom. To this practice Mr. Barnes attributes the preservation of his crop. In what way are we to account for the good effects produced by these fires? Is it the smoke which in passing amongst the trees has preserved them from the attacks of aphids? I am aware that some persons have attributed the failure to this cause, as in many instances the trees were completely defoliated. I think, however, another beneficial result may be attributed to the effects of the fires. It has recently been remarked by one of our most intelligent cultivators, that "the most favourable circumstances for the blossoming of fruit trees are a bright sun and cold dry winds from north to south-east;—three or four degrees of frost at night are of no ill-consequence: this is the climate of the great fruit-growing districts of Germany, where in most seasons such enormous crops of Plums are grown." Now it is well known that one of the effects of fire is the rarefaction of the surrounding

air, and, consequently, the creation of a current. May not this current of air, produced in many parts of the orchard, serve to dispel the moisture, and thus increase the tendency of the pollen masses to perform their office, without which the most promising bloom will end in disappointment?

In one of the garden-rooms we observed a large sheet of paper, on which was written, the "Rules of Bicton Garden." These, to the number of between twenty and thirty, denoted the disposition of tools, and almost every operation in the garden, with the amount of fine in case of non-performance. The fines, which are small, are exacted by the foreman of the department under his supervision. The result of this system is, that in these gardens not a tool of any description is found in an improper place, while the houses, sheds, &c., are kept in the neatest order, and this with little trouble to the foreman, as it saves a great amount of words; the juvenile portion of the hands, in particular, take more heed of the deprivation of a penny than the most strict injunctions.

The Park, which in part has for some years past required draining, and consequently produced inferior grasses, is now in course of a process which will doubtless make its pasture of the best quality. Each season a portion of some few acres is trenched deeply, and if necessary well drained; it then undergoes a routine of cropping for three or four years, to be after that time again laid down to grass. Mr. Barnes kindly took us over a portion of land thus treated, and certainly the crops of Mangold, Turnip, Cabbage, &c., were of first-rate quality, and like every portion of the estate under his superintendence, denoted great skill of management.

O. P.

DO FRUIT TREES AND HYBRID RACES OF PLANTS DEGENERATE ?

THERE are and have been some learned men—philosophers, forsooth—who would have us believe that there was nothing better for our forefathers of the early world to eat than Crabs, Sloes, or astringent Grapes; all our fruits, say they, have been derived from parents originally worthless—the Apple from the Crab; Plums from Sloes; the Peach from the Almond, and so on. Those fruits known to the ancients, they tell us, were not the first type of their kind, but improved varieties of earlier created species; a progressive development, carried on through several generations, had produced a transmutation of matter, ending in an improved quality, and what at first was but a worthless production became subsequently, through successive stages, valuable and nutritious fruit, which too in time would wear out, and be replaced by something yet better. All this brought under our notice with such a plausible show of reasoning and display of scientific terms was enough to make us give up our own plain matter-of-fact convictions, and induce us into the belief that the earliest tribes of the human race must have fared very indifferently in the shape of fruits; and we may say the same of grain and vegetables, for the rule applies with equal force to each.

The very earliest notice of fruits, however, shows nothing that can be construed into the supposition that they were inferior to those of our own times, especially those kinds which then formed the food of man. The Grapes, Figs, Dates, and Almonds, described in the Scriptures as indigenous to the East three thousand years ago, were doubtless as good, and in all probability the same kinds, as are found there at the present day. If this theory of a progressive development to superior properties be worth anything at all, it must carry a general application; and as we have nothing on record to show how any improvement in the races of fruit trees could take place except by their reproduction from seed in a natural manner, we may infer that the excellence of the fruit first noticed, and which must have been the spontaneous production of the soil, would have had some higher origin than the types held up as the original species; and this takes us back to our old creed, that the fruits given man at his creation, *for food*, were, as they were pronounced to be, "VERY GOOD."

We submit, then, that there is no proof on record that fruits in all ages have been derived from the stocks alluded to above, but that some of them at least had existence coeval with man himself, for whose sustenance and enjoyment they were created, and whose migrations many of them have followed. It does not follow that because in our day, when the raising of new fruits by artificial means is an every-day occurrence, such was always the case. There is no evidence that hybridisation—or crossing the sexes of plants of the same genera together to produce new varieties in the progeny—was known to the nations of antiquity, although grafting and inarching was commonly known and practised, by the Romans at least. On the contrary, that great philosopher, Lord Bacon, informs us, that the "compounding or mixture of kinds of plants is not found out, which nevertheless if it be possible is more at command than that of living creatures; wherefore it was one of the *most notable experiments touching plants to find it out*, for so you may yet have great variety of *new fruits and flowers yet unknown*." Quite right, my good Lord Bacon, as we of this generation know full well; and we see how clearly he foresaw, 250 years ago, the results which would follow the "*notable experiments*" he suggested; "for," added he, "grafting does it not; that mendeth the fruit, or doubleth the flowers, but it hath not the power to make a *new kind*, for the scion overruleth the stock."

Our readers will gather from what we have advanced that our opinions are unchanged, and that as we find no trace of gradual or progressive improvement, good and bad ever have been and will be mixed together without any assignable cause or reason, or in any regular succession. Neither have we evidence satisfactorily proved of races degenerating or wearing out, further than that natural limit of existence which is assigned to each class of creation, whether belonging to the vegetable or animal kingdom.

We shall therefore follow up the subject from time to time, on the evidence before us touching the question in hand.

Since the above was written—which was omitted last month for want of room—we find, by a notice in the "Scottish Gardener" for

May, that we are wrong in attributing the review of Dr. Lindley's "Theory of Horticulture" to Professor Balfour. We hasten, therefore, to correct this statement, made in our first article. Our impression that such was the case was formed through a conversation when last in Edinburgh with our northern friend just as the notice of these articles came out, that the learned Professor of Botany in the Edinburgh University was to write them. We confess to not having read Dr. Balfour as we ought to have done—a duty we promise ourselves whenever leisure time permits us. In the meantime it is gratifying to know that our own humble opinion on this subject coincides with that of so good an authority as Dr. Balfour.

Our observations have been collected more from nature than from books, and any future remarks we may make on this important subject will have reference to the elucidation of the truth, as brought under our notice through the evidence of facts known to ourselves.

SPRING FLOWER GARDENING AT CLIVEDEN.

WE question if sufficient attention is yet paid to the importance of a supply of flowers in the open air, during the early spring months, previous to "bedding out" for the summer season. No one can deny that from November until June, unless some effort is made in the direction of winter or spring decoration, the beds of a flower garden wear a very cheerless aspect; and as in most cases the beds are in close approximation to the house, it really becomes a question worthy of due consideration, if more attention should not be paid to the subject. Some may argue that such a system entails additional expenses, and is therefore objectionable; but if preparation is made beforehand, the expense and trouble become really light. So much can be done with common inexpensive plants, such as Wallflowers—sown in the previous summer, Pansies struck from cuttings during the past season, Tulips of sorts, yellow Alyssum and blue Forget-me-not, both of which are easily increased, that the difficulty soon becomes lessened. The truth is, the plan can be easily and cheaply carried out, if a *system* is adopted.

We have recently visited Cliveden, and were much pleased with the gay appearance of the flower garden; and we find that Mr. Fleming has for some time past adopted the plan of having a display of flowers in early spring, previous to planting out his usual stock of bedding plants for the summer. The display of bloom and the arrangement of colours were admirable, and most effective when viewed from the terrace of the house. In the terrace garden a *broad ribbon border* was planted thus:—The first belt was yellow Pansies; the second belt consisted of blue Pansies; the third of white Alyssum; the fourth of blue Myosotis; the fifth of Anemones and Tulips; the sixth of Wallflowers; and the seventh of Honesty, in both the red and white varieties. This border had a telling effect from the terrace, and the arrangement can easily be modified, so as to admit of its being worked out on a smaller scale.

The large beds were also very gay, being filled thus:—One bed was a mass of double yellow Rose Tulip, with a border of the pale pink-flowered *Silene pendula*; another bed with the double white Tulip *La Candeur*, edged with mixed Anemones; a third bed was filled with the double red Tulip *Rex Rubrorum*, bordered with white Forget-me-not, and so on. These large beds are 80 feet in circumference. A long winding ribbon was well filled in this manner:—Centre row, blue Forget-me-not; rows left and right, white Forget-me-not; the outside rows consisting of yellow Pansies. In the small flower garden, an effective border contained in the first row *Aubrietia purpurea*; in the second, yellow Pansies; in the third, white *Myosotis*; the fourth was composed of dwarf Italian Wallflower, and the fifth of yellow Rose Tulips. Various beds were filled very effectively—in one instance with *Rex Rubrorum* Tulip, edged with blue Pansies; another with *Pæony Gold Tulip*, edged with white perennial Candytuft; a third with *Eclatante Rouge Tulip*, edged with yellow Alyssum, or *Cheiranthus Marshalli*; a fourth with double scarlet *Ranunculus*, bordered with yellow Pansies; a fifth with white perennial Candytuft, edged with blue Pansies; and a sixth contained blue Forget-me-not, margined with white Pansies: we also noticed the double white Saxifrage as a most useful and efficient decorative plant.

This system of arrangement is adopted by Mr. Fleming on a large scale, and provision is of course made for it during the summer by providing the necessary plants in a nursery or store garden, in readiness for transplanting in the autumn to the flower garden, and *vice versa* in June. When the beds are on a large scale, it is not necessary in all cases to remove them, as the early spring-blooming plants can be so arranged that by cutting them in close, after blooming, and allowing sufficient space, the summer-flowering plants can be placed between them. Many of the bulbs, also, are in a dormant state during the summer.

Cliveden is one of the beautiful residences belonging to His Grace the Duke of Sutherland; and knowing that Mr. Fleming devotes a large share of attention to spring-flower gardening, we paid it a visit during the first week in May, and found the beds and borders completely filled; and although many of the plants were common, the effect was novel and pleasing in the extreme, and we feel convinced that the system is worthy of more general adoption, and would amply repay the little trouble and expense attending it.

HORTICULTURAL SOCIETY.

MAY 5.—Rev. L. Vernon Harcourt in the chair. Forty-three new Fellows were elected on this occasion. At this meeting some good fruit in the shape of Pine-apples was produced, and there were some remarkably fine specimens of Grapes, especially from Mr. Fleming, gardener to the Duke of Sutherland at Trentham. These were Black Hamburgh, large both in bunch and berry, and beautifully coloured. Good Grapes also came from Mr. Hill, Mr. Fleming, of Cliveden, Mr.

Forbes, of Woburn, Mr. Spary, of Brighton, and others. Beautiful Keens' Seedling Strawberries came from Mr. Smith, of Twickenham, and we also noticed fine dishes of British Queen, Sir Harry, and Alice Maude. Messrs. E. G. Henderson showed a dish of the new Strawberry "Adair," but not in a sufficiently good condition to enable the judges to offer any opinion as to its merits. It is Pine-shaped and of good colour. Black Circassian Cherries, large and finely ripened, were furnished by Mr. Fleming, and by Mr. Ingram, gardener to Her Majesty, at Frogmore. Mr. Hill sent from Staffordshire Royal George Peaches, very good for the season; and among other fruits were Melons, Oranges, and Loquats—the last from the Duke of Northumberland's garden, at Syon.

Of Orchids, Messrs. Veitch sent a magnificent collection; and of the same showy class of plants were some rarities from Mr. Pilcher, gardener to S. Rucker, Esq.; foremost among the last was a new *Trichopilia*, a most charming thing, in the way of *T. coccinea*, but brighter in colour and far handsomer; of this we hope some day to give a coloured representation. Mr. Snow, gardener to Earl de Grey, sent cut specimens of Smith's yellow Noisette Rose, a pretty sort, but as shown inferior in beauty to *R. ochroleuca*, which is nearly the same in colour. A white pink-spotted forcing Pelargonium, called Blanchfleur, came from Mr. Braid, of Hendon. A collection of Auriculas, comprising most of the leading varieties, was shown by Mr. Turner, of Slough. Messrs. Henderson, Cutbush, and Forsyth—the last gardener to Baron Rothschild—furnished groups of miscellaneous stove and greenhouse plants. From Mr. Glendinning came *Dracæna lutea*, a drawing of the handsome *Farfugium grande*, of which we have already given a coloured illustration, and a specimen of the Rice-paper plant (*Aralia papyrifera*). This is the tree from which the Chinese manufacture what they call their Rice paper, but from the statement which was made at the meeting, it would appear that what we have always been led to believe was paper manufactured from Rice is not paper at all, but is simply the pith of the *Aralia papyrifera*, which, after being taken from the tree, is peeled, and afterwards pressed, and thence becomes what we have been used to style Rice paper. It was stated that this material might be made more use of by artists in this country than it is; for being itself of the same nature as petals, flowers drawn on it would not only have the colour but also the texture of real blossoms themselves. A Rhododendron from Moulmein, with pure white blossoms, crimped round the edges like the handsome *Azalea crispiflora*, came from Messrs. Veitch. This, we learn, has been named by Sir Wm. Hooker, R. Veitchi. Its flowers measure fully five inches across the mouth. From the Duke of Northumberland's were also some extremely pretty Rhododendrons, especially one named Percyanum. This, with a batch of other hybrids, was raised at Syon some years ago, and is a really handsome sort. It has large trusses of snow-white flowers, richly spotted with crimson. From Woodford came some well grown Lycopods and Ferns, and Mr. Allnutt, of Clapham, sent a fine specimen of *Camellia Sasanqua rosea*. Cut blooms of *Cantua dependens* were furnished from an open wall in Devonshire; this under ordinary cir-

cumstances is, however, a greenhouse plant; even at Kingsbridge, whence it came, the climate is found occasionally to be almost too severe for it. *Amphicome Emodi* was shown by Col. Fairhead. It looked as if, when better grown and flowered, it might prove an acquisition.

Of vegetables there were a considerable number, and among them tubers of the Chinese Yam (*Dioscorea Batatas*). When more common, these may be expected to form a useful addition to our winter vegetables. They may be cultivated with as little trouble as a Potato, and when properly cooked are said to be about as good. Care must, however, be taken not to boil them too much; ten minutes are sufficient; in fact, they require very little cooking, which, as was stated, is in itself a point in their favour.

Rooted Vine cuttings struck from laterals, in silver sand, were exhibited by Mr. Fleming, of Trentham, to whose ingenuity we are indebted for this important new mode of propagating the Vine. They were said to have formed roots in five days 3 inches long. New varieties of Vines may therefore now be increased with the utmost speed and facility.

FRUIT CULTURE.—No. IV.

BY MR. POWELL, ROYAL GARDENS, FROGMORE.

(Continued from page 116.)

MOST fruit trees that are grown in a British garden require unremitting care and attention to keep them in a state of health and fruitfulness; therefore, in our climate, where we have so many sunless days in summer, we require the assistance of brick walls, glass structures, and trellises, &c., to make up the deficiency of solar heat; thus by growing the trees in a constrained and artificial manner, we bring fruits to high perfection that are natives of more favoured climes.

There are various modes of pruning and training adopted for our different fruit trees, all claiming a share of more or less merit. The use of training is to modify the form of the trees, and for the more complete exposure of the leaves and branches to the full action of the sun, to facilitate the production of blossom buds, and bring the fruit to perfection, and to arrange the branches in such a manner as to preserve an equilibrium in the growth of each branch throughout the entire tree. The latter is partly accomplished by arranging the branches in a certain form, and partly by stopping and pruning, which will have a tendency to regulate the energies of the trees, by restraining the excessive growth of one branch and encouraging that of another. This will be considered when treating of the different fruits. At present we shall confine ourselves to the properties of *training*; and to reduce all the different variations of training fruit trees to reasonable limits, we shall place them under the following heads: viz., the pendulous, the horizontal, the vertical, and the fan form.

Pendulous Training is better adapted for the Pear than perhaps any other fruit; and no fruit tree is more accommodating, or will so easily succumb to the fanciful ideas of the trainer. This mode of

training trees is very conducive to fruitfulness, owing to the drooping position the branches are made to assume, which has a tendency to check the upward flow of sap, and consequently lessen the spurious growths of summer.

Conical Standard. Fig. 9, or *Quenouille*, as it is termed, is a system that first originated in France, but requires to be modified to suit this climate, as the Pear and other fruit trees grow stronger and are less fruitful with us, owing to a lower temperature and moist atmosphere.

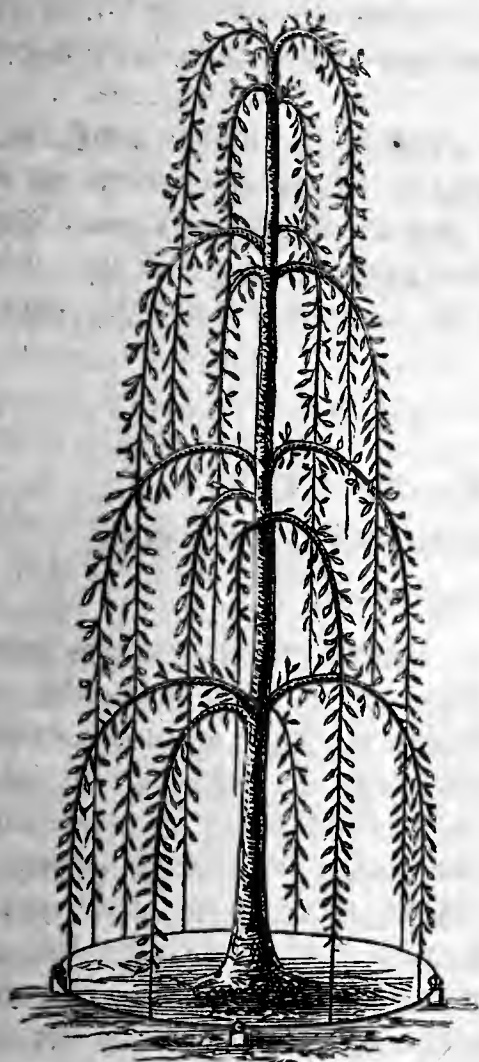


FIG. 9.

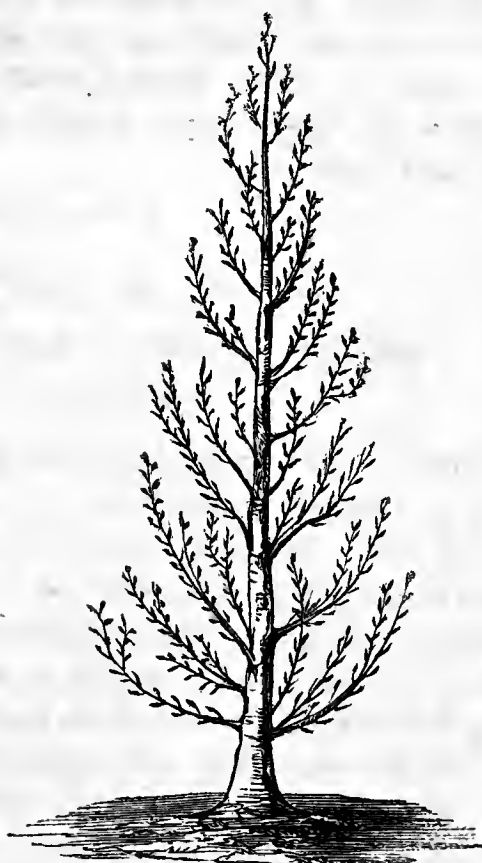


FIG. 10.

The French mode does not admit of the pendant shoot extending downwards farther than from one branch to the other; however well this mode may suit the climate of France, it will not answer here, except for a few free-bearing varieties; the excessive growth of summer shoots cannot be avoided; to obviate this, the branches should be allowed to extend downwards till they finish their growth, which will be arrested by the formation of fruit buds at their extremities.

To form a conical tree, as shown at fig. 9, choose young and healthy plants, with straight clean stems, about $2\frac{1}{2}$ feet in height; shorten the leading shoot, and encourage five lateral shoots, to form the first tier of branches and one leader, which must be again headed at two feet from the first set of shoots, when other five shoots are selected; and, supposing the first set of branches to be tied to the hoop at the base of the tree, the second will extend to the hoop also, training them alternate with the

first, and so on, till the tree is the desired height, about ten feet. The wire hoop, placed at the foot of each tree for fixing the branches, should be about 4 feet in diameter and fixed to stumps placed in the ground. After midsummer is the best time for bringing the shoots downwards, and during the summer remove all superfluous shoots, and stop the rest with the exception of the leaders. In about five years the trees will be complete, and when finished will form a pleasing object, and generally produce fine fruit with comparatively little trouble. There are some desirable advantages attending this mode of training fruit trees:— Firstly, they take but little room, and may be grown in the vegetable garden without injuring the crop by shade, which renders common standards so objectionable. Secondly, the fruit is large and finely flavoured, through exposure to the sun; and lastly, it is secure from high winds. Plums and Apples will do very well trained in this manner. The former are very prolific and require but little attention after the tree is formed. They also look much better on the side of the walks in a garden than bush trees or espaliers.

There is also another mode of growing conical standards, termed *Pyramids* (fig. 10), and is suitable for the Plum, Pear, Cherry, and the Apple. The principal thing to be observed in forming a tree of this description is to furnish the lower part of the stem with strong branches, to divert the flow of sap from the centre part of the tree; the leading shoot is kept erect by tying to a stake, and the side shoots regulated by pruning. When the tree is formed, and of the desired height, constant stopping of the terminal shoots is required to preserve its shape, and occasional root pruning to keep it within bounds and fruitful.

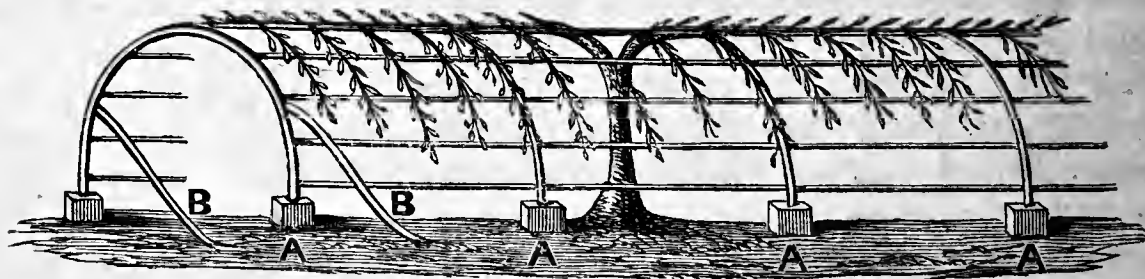


FIG. 11.

For this and all other modes of fancy training, avoid, as far as possible, the planting of *strong growing* sorts, but rather choose those of moderate growth and fruitful habit. The following kinds are among the best for the purpose: In Pears, the Marie Louise, Beurré Rance, Williams's Bon Chretien, Winter Nelis, Passe Colmar, Fondant d'Automne, Seckle, Althorp Crassane, Louise Bonne (of Jersey), Easter Beurré, Baronne de Mello, and others of similar growth. In Plums, the Jefferson, Reine Claude Violette, Orleans (Wilmot's), Victoria, Fotheringham, and Golden Drop. Cherries (as pyramids), the Elton, May Duke, Royal Duke, Black Tartarian, Adam's Crown, and the Black Eagle.

In the Royal Gardens at Frogmore, Pears and Apples are largely grown on covered trellises, which is a mode of pendulous training adopted when the garden was first made, and forms a nice finish to the vegetable quarters in the centre of the garden. It is found to answer

well, and in favourable seasons abundance of fruit is obtained, equal in size to that from wall trees. These trellises, fig. 11, are six feet wide at the base, and four feet high, and consist of several iron benders, six feet apart, and fixed to wood or stone blocks in the ground, A. The benders at each end are stronger, and supported with spears to bear the strain of the horizontal wires; nine wires are strained lengthwise from end to end—one at the top or crown of the trellis, and four on each of the curved sides.

The trees are planted in the centre or crown of the trellis, 18 feet apart; two shoots are trained horizontally to the centre wire—one to the right, the other to the left—and from these branches train equidistant shoots downwards, as shown in the woodcut. The summer treatment consists of removing superfluous shoots and stopping those produced from the fruit-bearing spurs; in the winter time they are pruned similar to other trained trees.

(To be continued.)

NOTES ON THE MONTH.

SINCE I penned my last Notes we have again experienced what a fickle climate we have to do with. The last week in April and first in May were remarkable for their extreme low temperature; cold east and north-east winds prevailed, attended on several days with a foggy atmosphere, which reminded us more of the mouth of the Schelde in December than the last week of April in England. On the 24th, 28th, and 29th of April, and 6th and 7th of May, the frost with us registered between 5° and 7° each night, and was below the freezing point on almost every other night. We have no time to consult the weather statistics of late years, but have an opinion that the fortnight ending the 7th of May will prove the coldest on record. On the 7th we had a change—the wind veered round to the west, and brought us a warm sultry atmosphere; on the 8th and 9th we had thunder with heavy rain, and up to the 17th the weather was genial, warm, and sunny—all, in fact, we could desire; from the 17th to the 21st it has been rather colder and dry. To-day (the 21st) we have rain, which will be welcome to many districts, as the showers which fell with us on the 9th were partial, and the want of rain is severely felt.

The change from the low temperature of the fortnight preceding the 8th to the summer weather which followed has produced a sudden outburst of vegetation; the rapidity with which the pent-up buds unfolded themselves under the genial influences of the late fine weather was remarkable, and the alteration produced on the landscape, as day by day the eye traced the simultaneous rush into leaf which took place in most of our forest trees, was as interesting as the effect on the country was beautiful.

With us, those standard orchard Pears and Plums which bloomed early were killed; later ones have partially escaped, and in sheltered spots entirely so. Cherries appear a fair crop; we have no accounts, however, from the Cherry orchard districts. Apples, of course, were

but little in bloom then ; they are fully so now and promise abundance, but we have yet the caterpillar plague to go through. In garden fruit, Apricots are thin—many have fallen off, through some injury, we expect, to the embryo when in blossom. Peaches and Nectarines set a medium crop, but the cold winds, frosty nights, and sunless sky have made the trees look very miserable and curl-leaved. Blight and gum are everywhere apparent. The wood, last autumn, was not well ripened, and it required a favourable spring to carry us on to a prolific autumn. Much fruit has already fallen, and, if the summer is cold and wet, I fear the worst even for the trees, as nothing but hot weather can save many, even now. Out-door Strawberries look promising, although many plots suffered during the autumn of the last two years from *damp*. But then, no doubt, we shall be told they are *wearing out*, as I see that theory is again broached. Well, “It is an ill wind that blows no one good,” and if gardeners suffer through inclement seasons, orchard-house builders are in full work, and ready to make us a climate wherein we can succeed—so they say.

G. F.

PLANTS ADAPTED FOR LAKES AND THEIR MARGINS.

THE introduction of artificial water in connection with our pleasure-grounds, forms, in many instances, the most interesting feature of our English gardens. In confirmation of this the names of many gardens might be cited where such lakes are to be found. My object here, however, in bringing this subject before the notice of your readers is not so much to take into consideration the merits of artificial water, or the mode of introducing it to garden scenery, as to point out a few of the many beautiful plants that may inhabit its surface and margins, and serve at once to render it diversified and still more beautiful and interesting.

In introducing plants into artificial water, the exercise of sound judgment is requisite ; the extent of the water must necessarily govern, to a very great extent, the class of plants to introduce—tall growing plants, or those which are inclined to cover a large space, would be exceedingly improper for lakes of small extent ; while, on the contrary, in a large sheet they would create bold and striking features.

In traversing the banks of many of our rivers, we cannot but be struck with the luxuriance and beauty of the vegetation. It is here that we must go for a part, at least, of the material with which to furnish the margins of our artificial water. The tall growing exotics—such as *Gynerium argenteum*, *Arundo Donax*, *Bambusa falcata*, with other native and exotic Grasses—are well adapted for the banks and margins of water, where, if backed by evergreens, the effect of such plants as the *Gynerium*, when in flower, will be much enhanced. Many of the *Carex*, too, though generally looked upon as uninteresting plants, when growing in large tufts, and their tall waving flower-stems hanging gracefully over water, have a very pretty appearance. The Ferns are naturally shade-loving plants, and on the margins of lakes

there are generally suitable situations to be found for them ; when such is the case, the introduction of such plants as *Osmunda regalis*, *Asplenium Filix-fœmina*, many of the *Aspidiums*, and, in fact, most of the larger-growing British and hardy exotic species, may be introduced with the best effect. With regard to such plants as the *Typhas*, *Phragmites communis*, and many other plants which naturally grow in marshy ground, they may be introduced with good effect when the water is sufficiently deep, except near the sides of the lakes, to prevent them spreading and becoming troublesome. Such plants as the flowering Rush (*Butomus umbellatus*), *Menyanthes trifoliatus*, some of the *Alismas*, *Acorus Calamus*, *Sagittarias*, and several of this class of sweet-scented and beautiful plants, should be placed at points on the margin of the lake where they could be more closely approached. In Devonshire, we have heard of such plants as the *Calla æthiopica* and some of the *Hedychiums* withstanding our winters, and growing luxuriantly during the summer months. With such materials our lakes would indeed assume a new feature. These plants, like some of the more tender aquatics, escape and grow more luxuriantly when their roots are some eighteen inches or two feet beneath the surface of the water. With regard to aquatics proper, the *Nymphæa alba* and *Aponogeton distachyon* are always much admired ; the former spreading its foliage in such masses as to become a conspicuous object at a great distance—while the latter, being smaller, is more adapted to small lakes and the margins of those of large extent. The *Potamogetons*, though interesting, and many of them pretty, are generally too weedy in their growth to be admitted by design into artificial water.

Though the names of such plants as would serve to contribute variety and beauty to our lakes might be much further extended, the present will suffice to show that there exists an abundance of material, and it only requires the good tact of our amateur and professional gardeners to give a charm to such features as they have hitherto but too rarely possessed.

ROSES.

RICHLIEU, of Brussels, describes a first class Rose thus, and says it applies to all Roses:—First, the petals should be thick, broad, and smooth at the edges. Secondly, the flower should be highly perfumed. Thirdly, the flower should be high on the crown, round on the outline, double to the centre, and regular in the disposition of the petals.

This is certainly a first-class description of a Rose, but I fear there are few first-class Perpetuals, as they generally lack the second attribute. Of those which I have or which I know, the three that come nearest to the first and third rule are William Griffith, Prince Leon, and Madame Laffay, an old but first-class Rose. William Griffith is the most perfect in shape and thickness and regularity of petal. Prince Leon is brighter in colour, and scarcely inferior in shape, disposition and thickness of petal. Madame Laffay is perfect in shape and colour, but not quite so thick in petal, though equally well disposed.

I have about 200 Roses, chiefly Autumnal. About 40 of them are the same as those named by "A. S. H.," in the March number of 1856. That list is no doubt excellent, but lacks information as to "habit," an item quite as important as "shape and colour."

For the sake of humble contributors to your journal, who cannot afford to buy the whole of the Roses named, or who have not room for so many, or who have windy situations, in which delicate and dwarf habited Roses will only disappoint, with an addition or two, I will recommend out of that list, a limited number which throws good wood, are hardy, cast good and handsome blooms, do well in windy situations, as any Roses could do, and which answer more or less to the first and third rules laid down by Richlieu, in his treatise. I may add that the westerly winds (on a Dorsetshire down) set right into my garden and the frontage of my house, which is protected on east, south, and north. I affix the colours, which seem to be various. I know no first-class white Rose.

HYBRID PERPETUALS.

William Griffith, light lilac rose
 Prince Léon, vivid crimson
 Madame Laffay, rich rose
 Géant des Batailles, vermilion
 Pius the Ninth, bright crimson
 Jules Margottin, bright carmine
 Caroline de Sansalles, pale blush
 Baronne Prevost, rose colour
 Duchess of Sutherland, delicate mottled pink
 Augustine Mouchelet, light rosy crimson
 William Jesse, crimson tinged lilac
 Jacques Lafitte, bright carmine rose

These five are magnificent.

Auguste Mie, pinkish blush
 General Cavaignac, deep flesh
 L'Enfant de Mt. Carmel, deep crimson
 Prince Albert, dark velvety crimson
 Madame Trudeaux, brilliant carmine
 Comtesse Duchatel, pinkish rose, beautiful shape
 Dr. Juillard, deep rose—looks and smells like the Cabbage Rose
 Sidonie, a most brilliant pink satin
 General Jacqueminot, not so double as some of the others, but it is such a beautiful scarlet crimson, and so good habited, that I could not leave it out

I add four first-class summer Roses, with a distinct and truly beautiful Hybrid China.

H.B. Paul Ricaut, crimson scarlet
 Coupe de Hébé, delicate light rose
 R.G. Kean, red coal scarlet, beautiful foliage, perfect and splendid
 Triomphe de Jaussens, brilliant

crimson, perfect shape, and superb
 H.C. Madeleine, white, margined with carmine—sometimes it is suffused over the whole flower. It is beautiful and distinct.

Here are 26 hardy Roses, throwers of good wood, beautiful in shape, and good bloomers. The above five summer Roses will bloom twice with me. Paul Ricaut is hardly second to any in colour or shape.

Among my 200 I have many new ones; but I will recommend these above as I know, because I have had experience in them, and can speak well of their "habits," as well as of their "shape and colour." If I am wrong, I am open to reproof, but I doubt not "A. S. H." will bear me out; and had he distinguished them by "habit" I should not have troubled you.

Heckeren is distinct, very large, and ill-formed in petal. It looks like four ears of elephants, and is hollow. Graciella and Jeanne d'Arc are beautiful, but still delicate.

As regards cluster Roses, such as Sidonie and Augustine Mouchelet, the best way to get a first-rate specimen is to pick off two buds and leave the cleanest and healthiest. Sidonie, Baronne Prevost, Jacques Lafitte, and Pius IX. make excellent pole or wall Roses. Solfaterre is an excellent house Rose, is hardy, beautiful in leaf, and stalk, and buds and is most highly perfumed; and I think it is easier cultivated than Lamarque or the glorious Cloth of Gold. I have a five or six years old tree against my house, which has 147 clean and well formed clusters in a forward state at this time (the 20th of April).

Yellow Roses on their own roots do not, as a class, bloom freely till they acquire age. The Queen of Bourbons and Pius IX. throw most good and least defective Roses of my 200, and the only five that bloomed three crops last year were the Queen of Bourbons, Gloire de Rosamene, Géant des Batailles, Sidonie, and Bouquet de Flore. The most subject to mildew or white blight usually are the Géant, Ohl, and Madeleine. The only two corneous, or green-eyed, of mine are Madame Aimée and Ohl. La Reine is magnificent when it develops well; William Jesse is preferable to it, because it unfolds easier. The Cloth of Gold (I have it not, but there is a splendid tree at Keynstone) is the only Rose I know that answers to all three of Richlieu's description of a first-class Rose. If the descriptions are correct, he shuts out the splendid semi-double Roses, General Jacqueminot, Brennus, Castellane, Bachmetoff, Chénédolé, and such like.

I conclude with this advice to my fellow juveniles in the Rosery—avoid dwarf-habited and delicate Roses and rind-rotted stocks, make your ground good as you can, plant shallow, tread tight, and tie firm to a stake; disbud useless buds, and remove one of two cross eyes; never permit weak wood; drench frequently with water and liquid manure in hot weather; look to the aphis, and syringe with Page's liquid or tobacco-water and soap-suds—do so before aphides appear. If you neglect these rules, you had better have no Roses.

W. F. RADCLYFFE.

Rector of Rushton, Blandford, Dorset.

ROYAL BOTANIC SOCIETY'S EXHIBITION.

MAY 20.—A fine day, with which this Society was favoured on this occasion, brought a large and very distinguished company together, amounting to nearly 8000 visitors. The first great spring meeting is always more enjoyable than those that follow, and this formed no exception to the rule; at succeeding exhibitions we miss that freshness which characterises this, and which is so pleasing to the eye.

The exhibition itself was a good one, yet it struck us that there was a larger number of plants than usual that certainly could not be called fine specimens. This was particularly observable in the ten Azaleas and twelve stove and greenhouse plants from nurserymen. Neither were the Orchids, as a whole, such as we have been in the habit of seeing exhibited by Mrs. Lawrence, Mr. Rucker, and Messrs. Veitch; they, however, made a good display, and are always interesting.

At the close of the five great exhibitions we intend to give a list of the successful competitors in a tabular form; this will save much space, and will be a more complete record. In the present instance we shall confine ourselves to enumerating novelties and remarkable specimens.

The ten Roses by Messrs. Lane were noble plants,—large, and all well flowered, the wonder being how they were brought to the exhibition, and the only drawback being too great a similarity of colour. The varieties were Paul Perras, Comte Molé, Chénédolé, Caroline de Sansal, Queen, Baronne Prevost, Lamarque, Coupe d'Hebe, Duchess of Sutherland, and Le Leon des Combats. Mr. Francis had a very good lot, the best of which was Souvenir d'un Ami. In the Amateur Class, Mr. Terry, gardener to Lady Fuller, sent some handsome specimens, with flowers of immense size. We were particularly pleased with Gloire de Dijon, Souvenir d'un Ami, and Comte de Paris in this collection. Mr. Rowland's Paul Ricaut was very fine. Mr. Paul sent small plants of many of the newer kinds of Roses, the best of which was Souvenir d'Elize, figured by us in our volume for 1856; this is a noble Rose, large, with thick fleshy petals of great width. Mr. Rivers, some time since, in our pages, expressed some doubts as to the quality of this Rose; if we remember correctly, Mr. Rivers had the same misgivings regarding *Devoniensis*; one will be as unfortunate a prophecy as the other.

The Azaleas, generally, with the exception of a few specimens in the miscellaneous class, were not good. *Variegata*, in Mr. Green's collection; *Optima*, in Mr. Colyer's; and *Coronata*, in Mr. Bassett's, were each exceedingly fine. Mr. Bray had some pretty standards.

The two collections of sixteen miscellaneous stove and greenhouse plants—exhibited by Mr. Green, gardener to Sir E. Antrobus; and Mr. Colyer—were large and well flowered, and in every respect were well up to the mark; so also were the ten plants from Mr. Bassett, of Stamford Hill, and Mr. Dods, gardener to Sir J. Cathcart, Bart. The varieties shown were those we have long been familiar with.

Ericas were prettily shown, but not numerous. We noticed a well bloomed plant of *Spenceriana*, figured by us in our last volume.

Pelargoniums were never exhibited in larger numbers or in better condition at a May show. The twelve plants by Mr. Turner were covered with fine large blossoms; his *Wonderful*, *Carlos*, *Sanspareil*, *Saracen*, *Governor General*, and *Lord Raglan* were admired by every one. Mr. Foster, of Clewer, and Mr. Beck, of Isleworth, sent very well bloomed collections of ten each. The former had a good *Carlos*, *Saracen*, *Wonderful*, and *Sanspareil*; Mr. Beck's best plants were *Laura*, *Sarah*, *Gem of the West*, and *Lætitia*.

Fancy *Pelargoniums* were generally good. The six plants exhibited by Mr. Turner were large and remarkably well flowered; they were *Evening Star*, *Cloth of Silver*, *Madame Sontag*, *Celestial*, *Lady H. Campbell*, and *Lady of the Lake*. Messrs. Fraser and Mr. Bragg also exhibited some fine plants in this class. In the amateur's class, Mr. Bousie, gardener to the Hon. H. Labouchere, sent six beautifully flowered plants, of good kinds. Mr. Windsor had also six very good plants, but mostly poor varieties. If Mr. Thomson is to treat us this

season to a few of his monster plants, in monster pots, we hope there will be some of the quality in the varieties we had here on this occasion, and they will be far more interesting.

Tall Cacti were shown by Mr. Green and Mr. Grix, but not of a large size.

Pansies were shown in very good order by Mr. Bragg, of Slough; Mr. Anderson, of Teddington; and Mr. James, of Isleworth. And Tulips by Mr. Turner, of Slough.

New Plants consisted of *Rhododendron Veitchi*,—a greenhouse variety, with large pure white flowers; *Rhododendron limbatum*, from Mr. Standish: this is a handsome variety, shaded in the way of *concessum*, but much deeper in colour, the edge of the petals being deep crimson: the base of the flowers is blush. Messrs. Veitch also sent *Gesnera Miellezi*, a pretty free blooming dwarf mule, obtained, we believe, from *Gesnera Donkelaari* crossed with a *Gloxinia*; and a white *Ixora*, which does not appear to have much merit. Mr. Glendinning sent a large specimen of the *Farfugium grande*, a noble hardy variegated plant, made familiar to our readers last season by a beautiful drawing by Mr. Andrews. Mr. Glendinning also sent six plants of *Abies Kæmpferi*, and other novelties. There were a few new Orchids, of no great distinction from varieties already known. Messrs. E. G. Henderson sent some small but new and interesting coniferous plants, including the beautiful *Chamæcyparis thurifera*, now being distributed by the Horticultural Society; and some pretty variegated bedding Geraniums—*Hotel de Cluny* and *Fontainebleau* were the best. Mr. Salter, of Hammersmith, sent a collection of variegated hardy plants, some of which are very pretty; including a Strawberry and Lily of the Valley.

There was an average number of seedling Pelargoniums; Mr. Beck received four certificates, Mr. Turner three, and Mr. Hoyle one; we were much pleased with *The Bride*, *Richard Benyon*, *Senora*, and *Etna*. As we expect to see the others in better bloom at a future exhibition, we shall not particularise them. Mr. Cutbush received a certificate for a light forcing Pelargonium. Cinerarias were nearly over, but fair plants were shown by Mr. Turner; the best kinds were *Brilliant*, *Mrs. Hoyle*, and *Baroness de Rothschild*: the latter received a certificate. The most effective varieties of Azaleas exhibited were *Criterion*, *Duke of Devonshire*, *Perryana*, *Iveryana*, *Optima*, *Coronata*, *Lateritia*, *Gledstanesi*, *Variiegata*, *Purpurea superba*, *Arborea purpurea*, *Delicata*, *Barclayana*, and *Exquisita*; and *Eulalie*, sent out by Van Geert, but is very generally called in error *Eulalie Van Geert*. It is but second-rate compared with *Ivery's Criterion*, and is in the same way.

GOSSIP.

THE forthcoming Exhibition of Garden Implements, Machinery, glass Structures, Decorative Objects, &c., in the Gardens at Chiswick, in connection with the Horticultural Exhibition, on the 3rd and 4th instant, is likely to produce a great display of articles employed either in the management or construction of gardens. New boilers, models of houses, pits, &c.; mowing machines, pumps, syringes,

engines, pots, vases, philosophical instruments, &c., will be exhibited (so we hear) largely, and will give country gentlemen and their gardeners an opportunity of comparing the merits (so far as an inspection will allow) of the different articles shown in each class. We beg to remind all parties interested in gardening that this is an opportunity which may not soon occur again for inspecting the various forms of houses, conservatories, pits, tents, garden machines, and implements; and as this manufacturers' exhibition will remain open a fortnight, a visit during that period will amply repay those interested in the improvements made during the last few years. We hope the society will allow trials to be made where practicable, and that in time the different modes of heating and ventilating will be tested at the gardens.

The head superintendent, Mr. M'Ewen, is driving on as much as possible with his improvements. We have before intimated that too much must not be expected, as in a place of the magnitude of Chiswick it will be a work of time, but the alteration to the American garden is fast approaching completion; when we consider the work connected with getting up the exhibition, we are somewhat surprised to find so much done already.

Abies Kœmpferi.—A young tree of this beautiful Conifer was planted out during the first days of April, growth having then commenced. We are pleased to say that it has not suffered in the least from the frosts which have occurred since; the young shoots are fresh and green, and making way. In this neighbourhood the common Larch (nursery stuff) suffered by the frosts of the last week in April, injuring the spring growth. We may therefore hope the Golden Pine is perfectly safe from these visitations.

An interesting fact—known before, but never much attended to—has lately been proved at the gardens of the Horticultural Society, by taking the temperature at different altitudes from the surface of the ground to 30 feet above it. By consulting the table which records the temperature every 6 feet in height, we find an average difference of $1\frac{1}{2}^{\circ}$ to 2° increase of temperature between 6 feet in height and 30 ft.—the highest point at which the observations are taken. If we apply this to the culture of orchard fruits, we perceive the advantage full standard trees have of escaping spring frosts to dwarfs, &c.; the difference indicated in the table between the amount of cold at 6 feet elevation and 30 feet being sufficient, although small, to preserve the bloom uninjured at the higher elevation, when it would be destroyed near the surface and up to 6 or 12 feet in height. Add to this that the air always contains more moisture nearer the ground than at a greater height, and consequently frost would prove more destructive to the fruit organs than to those in a drier as well as a warmer medium. We find also that the cold is greatest about sun-rising, when the blossoms on trees above 20 or 30 feet in height would catch the first rays and prevent the ill effects of frost, which at the same time might be destroying the blooms nearer the ground. A consideration of these facts should make us ask ourselves the question whether we are right in planting so extensively dwarf trees.

CALENDAR FOR THE MONTH.

Auriculas.—Place these in the shade, but free from the drip of trees.

Camellias.—These will now be showing their bloom buds; a drier atmosphere should be maintained, otherwise they are apt to make a second growth, which would completely spoil the bloom.

Carnations and Picotees.—Remove any part of the surface soil that has become green and sour, and top dress with fresh. Cut away any dead foliage, and tie securely the main shoots to neat green stakes.

Conservatory and Show-house.—All large plants in tubs or pots—such as Camellias, Orange-trees, Acacias, &c.—should, as soon as their growth is completed, be set in some shaded situation in the open air. This will give more room for plants in flower, and these should never be the least crowded. Creepers will now require considerable attention in training and regulating their growth. Water copiously, and ventilate freely night and day. Guard against insects. Keep everything clean.

Dahlias.—Complete planting as soon as possible. The soil having been well prepared during winter, a little rotten manure to each plant is all that will be required, unless the soil is very stiff, when a little leaf mould is beneficially employed, to give the plant a fair start. Keep them well and regularly watered.

Flower Garden.—Plant Asters, Stocks, Zinnias, Marigolds, &c. Attend to the staking and tying of all tall-growing plants that may require it. Petunias, Verbenas, Ageratums, Anagallises, and plants of similar habit, should be pegged, to get them to cover the ground as soon as possible. Plants in vases will require considerable attention in watering, &c. Should the weather be very dry, all newly-planted beds should be well watered. Sow Brompton and Intermediate Stocks. Put in slips of Double Wallflowers, Sweetwilliams, and Rockets, either under hand-glasses or close to a north wall.

Forcing Hardy Shrubs.—Plants intended for forcing next season should now be well attended to, in order to secure well-ripened wood and properly-formed buds. Disbudding and stopping of the shoots are operations as necessary to be attended to here as with fruit trees.

Forcing Ground.—Attend to the regulating of the shoots of Cucumbers on ridges, also Vegetable Marrow. Water Capsicums. Stop and thin the shoots of Tomatoes.

Fruit (hardy).—Disbud all fruit trees in a trained state. Nail in the shoots of Peaches and Nectarines; thin the fruit when set too thick. Give the trees a good washing about twice a week with an engine—this will clear them of filth. Caterpillars are often very destructive on Apricot and Pear trees; their appearance should be carefully watched, and they should be hand-picked, which is the only effective means of getting rid of them. Look out for caterpillars on the Gooseberry bushes; white hellebore will effectually destroy them.

Greenhouse (hard-wooded).—Leave air at night. Now that all danger from frost is over, the hardier Heaths and New Holland plants may be placed out of doors in a sheltered place; in wet weather turn them on their sides, to prevent the soil in the pots from becoming

saturated. The more tender things—such as Leschenaultias, Chorozemas, Boronias, &c.—should be kept in the house. Shift into larger pots all plants that require it; many of the young plants that were potted early will now require a large shift. Avoid very large shifts. *Soft-wooded Plants.*—These should not be stopped much after this, but they will require attention in tying out of the shoots. Keep them clear of insects. Water freely, and give abundance of air.

Hollyhocks.—Mulch these, after which give them a thorough good watering, and continue to give them a good soaking once or twice a week, according to the weather.

Kitchen Garden.—The thinning of the rising crops, the destruction of weeds, the loosening of the soil between the rows, and copious waterings, are operations that should be carefully attended to during the month. Plant out large breadths of Broccoli of sorts, Brussels Sprouts, Savoys, Borecole, &c. Plant early crops of Celery. Plant Leeks. Plant Cauliflowers and Lettuces for successional crops. Sow Peas for late crops, and earth up and stake advancing crops. Sow French Beans. Sow Turnips; also Lettuces, Radishes, Endive, and Spinach, for successional crops. Sow Cabbages. Fill up all vacancies in growing crops by transplanting and well watering at the time of planting. Earth up late crops of Potatoes.

Pansies.—Propagate these as often as fresh young cuttings can be obtained. They strike best under small glasses on a shady border.

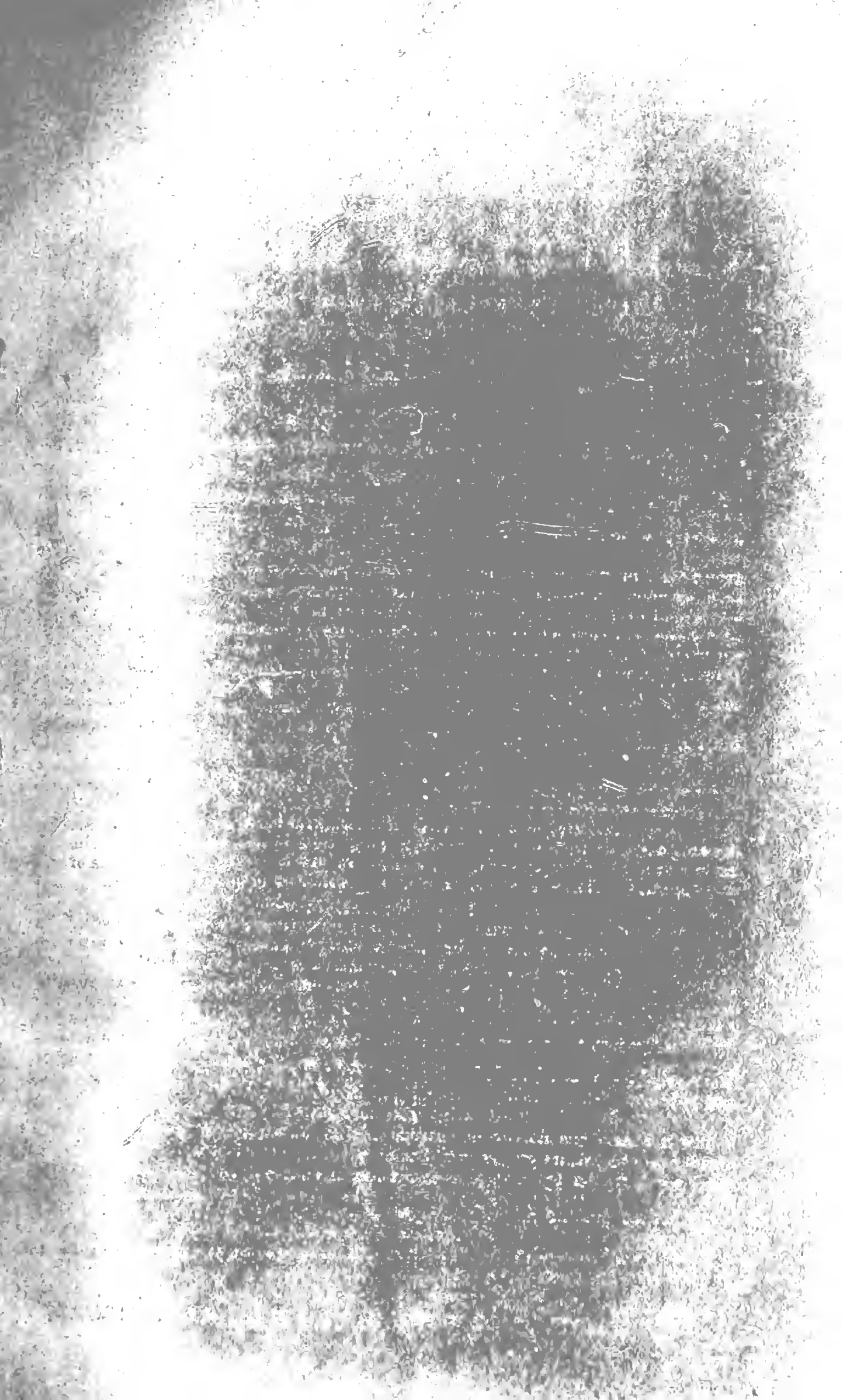
Peach-forcing.—See directions in previous Calendars. As soon as all the fruit is gathered from the early house give the trees a good syringing, to clear them of insects and filth. The great point now to be attended to is the ripening of the wood. Keep a moist atmosphere in houses where the fruit is swelling; water inside borders freely. Give air abundantly in the forenoon, and close up early in the afternoons, syringing the trees at the same time, and well wetting the borders, flowers, &c.

Pelargoniums.—Very little to do but to attend to and prolong the the bloom. Selecting seedlings is an important thing to attend to just now; this cannot well be done in the absence of the finest varieties already out. It is of little use selecting flowers for another season's growth unless quite dissimilar.

Roses.—Where fine blooms are looked for, the long continuance of dry weather makes it absolutely necessary, where mulching has been neglected, that no further time should be lost; the maggots, too, improving by the occasion, are making sad havoc, where not closely looked after. Keep down aphides by syringing, which will also be of much benefit to the plants. In pots, those done blooming should be plunged in a sheltered spot and have a top dressing of strong solid manure.

Strawberry-forcing.—Those who wish for good plants for very early forcing next year should lay in small pots the first runners that can be had. The Black Prince is a good sort for very early work; but for general forcing Keens' Seedling is the best yet.

Vinery.—Keep the houses where the fruit is ripe as dry and cool as possible. See previous directions respecting successional house. Late Vines should have a little fire-heat whilst in bloom.





Azalia Indica

Queen Victoria (Ivory)

THE CHINESE AZALEA.

(PLATE 128.)

THE admirers of Chinese Azaleas are certainly much indebted to the Messrs. Ivery, for the great attention they have paid to raising new varieties of this popular flower. In light coloured kinds especially (of which our present plate furnishes an example) they have been unusually successful, and their hybrids in this class comprise nearly all the best in cultivation.

In our volume for 1852, page 137, we figured two varieties—Criterion and Admiration, raised by Messrs. Ivery, of Dorking, which have fully answered the high opinion we then formed of their merits, and we now avail ourselves of another production—Queen Victoria, raised by Mr. Ivery, of Peckham, belonging to the same section, but having larger flowers, with good substance of petal, of a clear white ground, striped and blotched with rosy purple. It is, we understand, a cross between Iveryana and Barclayana.

Besides the three varieties of light class flowers figured in the FLORIST, the following kinds have originated or have been sent out by Messrs. Ivery, of Dorking.

Iveryana, white, striped with red.

Barclayana, white, with violet stripes.

Beauty of Reigate, white, with rose stripes.

These, with Admiration, Criterion, and Queen Victoria, are all first class flowers, and should be in every collection.

We give the names of a few other striped varieties by different raisers, which should be added to collections, if not already grown.

The best of them are—

Beauty de l'Europe, light pink, carmine stripes.

Striata formosissima (Veitch), white, with deep purple stripes, very fine.

Madame Miellez, white, with vivid flakes.

There are several others in cultivation, as Beali, vittata, &c., but they are very inconstant, a fault more or less connected with many of the striped varieties. Those we have named, however, may be depended on to come true under good cultivation, and are deservedly admired varieties.

This section of the Chinese Azalea has undoubtedly been derived in the first instance from *A. variegata*, whose progeny has a remarkable tendency to produce blotched and striped flowers. They all partake more or less of the *variegata* habit, and should be grafted on a strong growing stock, to form large plants, for which purpose there are few better than seedling plants of *A. phoenicea*, which furnish excellent free growing stocks.

The list of self coloured Azaleas has also received some valuable additions since we last noticed them in our pages. We append a list of a few select kinds, some of which, though not very new, are not so generally seen as we might expect, as they are a great

advance on the older kinds in form, substance, and distinctness and brilliancy of colour. Many of them are likewise richly spotted on the upper petals, a feature which adds greatly to their beauty.

- Gem (Ivery), pale purple, fine form.
- General Williams, pale scarlet, fine form.
- Rosy Circle, light purple, fine shape.
- Sir Charles Napier (Kinghorn), salmon, extra fine.
- Eulalie (Van Geert), blush pink, spotted.
- Symmetry (Kinghorn), rosy red, fine.
- Stanleyana, orange scarlet, very fine form.
- Chelsoni, orange scarlet, fine.
- Louis Napoleon, crimson violet, semi-double.
- Juliana, orange scarlet, very good.
- *Empress Eugenie (Rollisson).
- *Beauty of Dropmore (Frost).
- Imperatrice Josephine (Rollisson), cherry colour, good form.
- Marie, carmine, richly spotted.
- Rosalie, salmon colour, very distinct.
- Crispiflora (Standish), rosy lake, distinct.
- Duke of Wellington (E. G. Henderson), light scarlet, finely spotted.
- Trotteriana, violet rose, distinct.
- Magnifica (Rollisson), new, fine colour.
- Petuniæflora, fine form.
- Princess Royal, lake, with vermilion spots.

We beg to refer our readers to an excellent article on their cultivation at page 161 in our volume for 1855, to which we can add but little fresh information relative to their culture. In reference to the shape of the specimens by training, the writer of the article alluded to names the pyramidal or conical as one which well suits the habit of the Azalea. Where a less artificial style is attempted, the plant should be trained so as to form a somewhat irregular round-headed bush, with the branches brought down so as to cover the rim of the pot, in which form they are very effective when in bloom. Standard Azaleas are now getting common; we prefer them worked with a clean stem one foot high. The varieties for these low standards should consist of those kinds with a close compact habit, as Gledstanesi, lateritia, Iveryana, and the plants should be encouraged to grow by preventing their blooming till the heads get a good size—say ten or twelve inches in diameter—when they form the prettiest objects we have for small vases, ornamenting dinner tables, &c. For standards three feet high the stocks should be very strong before working them, and freer growing kinds may be employed. These latter make fine conservatory plants.

When Azaleas have attained as large a size as a No. 1 pot will grow them they may be kept in health for a number of years by slightly reducing the ball and picking out a part of the old compost, afterwards replacing them in the same pot with fresh

* Figured in the *Florist* for 1855, page 160.

compost. This should be done immediately after blooming, and when the plants are being kept close and damp to start them into growth. Great care will be required to keep the old part of the ball damp, for, if allowed to get dry, the plants are frequently irrecoverably injured. As the roots occupy the new soil, commence feeding with clear liquid manure thrice a week until the buds are fully formed, and occasionally afterwards, increasing the supply again towards the blooming period, to bring them out strong. It is at this stage of the plant's growth, when the annual growth is small, and the pots well filled with roots, that they bloom so profusely as frequently to cover the plants so that scarcely a leaf is seen.

MANCHESTER BOTANICAL AND HORTICULTURAL SOCIETY.

THIS Show, which has excited so much interest in the horticultural world, from its connexion with the Fine Arts Exhibition, took place on the 26th of May, and was altogether worthy of the occasion, and of the plant and fruit growers of Lancashire and the adjoining counties. But the exhibitors were not confined to the neighbourhood, for the committee and their indefatigable secretary, Mr. John Shaw, had spared no time in canvassing all parties who were likely to contribute to the exhibition. Many of our readers will be aware that the building for the Fine Arts Exhibition is built close to the Manchester Botanic Gardens, and visitors can pass from one to the other. The number of visitors then in Manchester added, no doubt, greatly to the number of persons who thronged the grounds; the fineness of the day and the excellent music provided contributed to make the scene animated and striking.

Among the most noticeable productions exhibited, we must mention the fine collection of miscellaneous plants sent all the way from the Exeter Nursery by Mr. Pince. These were contributed largely, and Mr. Pince deserves the highest praise for his liberality, as they were not entered for prizes. In the Exeter collection were several enormous bushes of *Erica depressa* and *Cavendishi*, such as nowhere else can be seen; a grand *Medinilla magnifica*; the showy *Acacia hispidissima*, one a standard, with a fine head literally covered with golden yellow blossoms, was very striking; some score of *Azaleas*, all specimen plants in fine condition; an extraordinary *Aphelexis humilis*, and two or three others scarcely inferior; two fine tall *Arundo donax variegata*, and many other specimen greenhouse plants, including a dozen *Cattleya Mossiæ* in every variety—in one we counted twenty spikes of bloom. We have not time to notice more of this collection than the singular *Ouvirandra fenestralis*, or Lattice plant, which was much admired. Mr. Cutbush, of Barnet, near London, had a superb collection of ornamental foliaged plants in excellent condition. In the local exhibition, Henry Nicholls, Esq., was conspicuous, his plants being well grown and bloomed. In greenhouse *Azaleas*, James Watts, Esq., was also a very successful exhibitor, and Mr. Fleming, of Trentham, who furnished

greenhouse Azaleas and Pelargoniums. A fine collection of Roses was exhibited by Mr. Lane, Berkhamstead; and Orchids, Ferns, Lycopods, and miscellaneous plants, by John Watts, Esq. Among nurserymen, Mr. Cutbush and Mr. Cole were the most successful. The arrangement of the plants was very tasteful and imposing, and gave great satisfaction.

The show of fruit, though not extensive, contained some admirable productions, contributed by Mr. Fleming, of Trentham, and Mr. Jennings, Knowsley. Mr. Fleming's representative, unfortunately, made a mistake in placing only one bunch of Grapes in his collection, in place of two, as stated in the schedule, and consequently the judges could not award him the first prize, which otherwise would have been the case, for his collection. His bunch of Hamburgh Grapes, Peaches, Nectarines, and Circassian Cherries were all that could be desired. Mr. Jennings had some good Hamburgh and Sweetwater Grapes, fair Peaches, and May Duke Cherries, a Jamaica Pine, and two large Citrons. In single specimens, Mr. Fleming was first for Black Hamburgh Grapes; a kind contributed by him and called the Esperione, beautifully swelled and coloured, was hardly ripe enough. Mr. Jennings had Hamburgh and Muscats; some fine White and Grizzly Frontignans were also exhibited; and we noticed fine Peaches from Mr. Fleming, and Keens' Seedling Strawberry—which in this case beat Sir Harry.

In the grounds was arranged a large collection of American plants, from Messrs. Waterer and Godfrey, of Knap Hill, and Mr. Baker, of Bagshot; they were, however, hardly sufficiently in bloom to judge of their merits, but we saw some boxes of cut blooms from the former nursery containing some fine specimens of new varieties. In the class Rhododendrons, as exhibited in pots, Mr. Micholls had some fine varieties.

Besides the plants exhibited in the Institution, Mr. Pince had a collection of hardy Conifers arranged on the lawn, growing mostly in large tubs. It contained fine specimens of *Thujopsis borealis*, *Araucaria*, *Dacrydium Franklinii*, the famous Huon Pine, the Douglas Fir, *A. Pinsapo*, and, in fact, all the new kinds of Conifers.

AURICULA BLOOM, 1857.

I AM fond of the Auricula, and grow it under plate glass, so that the flowers can be seen without opening the boxes, and even without going out of doors in rainy or windy and cold weather. I make notes of them from day to day; the following may therefore be useful to your readers:—

GREEN EDGED.

1. Ashton's Prince of Wales: Medium sized, with its eye and the three zones equally divided; paste and substance good; pip moderately flat, but pointed; edge pure, good trusser; colour intermediate between the violets and browns. Might be shown when good.

2. Beeston's Apollo: A high class flower of thin substance, and

petal slightly mouse-eared, but sufficiently flat and circular; violet ground colour; pure and vivid green edge of sufficient breadth, but the tube bleaches early. Will bear nine pips, but unless great care is taken to prevent increase it is apt to waste its strength on offsets and to flower badly, or not at all.

3. Booth's Freedom: Where number of pips is not regarded, this is the best green edge, the green being the most deep and pure, and the contrast between that and the black velvety ground colour being so perfect. But I have never but once seen seven on the truss, and its stem is weak, as is the whole constitution of the plant. It thrives best in pure vegetable mould.

4. Clegg's Lady Blucher: An attractive flower for a pointed petalled one. Colour a light bishop's purple, shading off towards the paste. Edge apple green and very transitory, but a good truss caught on the day of show would bid high for a prize.

5. Dickson's Duke of Wellington: This, the favourite of the London growers, is most attractive as a stage flower certainly, and one of the easiest to grow well; but it ought not to be admitted as a show flower where properties take the lead, nor is it anything accounted of in Lancashire. The ground colour, which is a violet purple, and very beautiful and velvety, occupies twice its share of the petal; and when the edge is green the petal becomes more pointed than when the edge is grey or white. The tube bleaches, but not early; the plant is of singularly smooth foliage and of robust constitution, and a rapid breeder; it is hardly large enough, moreover.

6. Dickson's Prince Albert: Of similar colour to the Duke of Wellington, or rather to Matilda, but more constant as a green edge than the former, but it is an apple green, which the other is not. It scarcely bleaches and lasts a long time in perfection, but is not a show flower.

7. Headley's King James: An exaggerated Duke of Wellington, with an edge that may be green, and probably is, but it requires a microscope to see it, and the petal is pointed. It has a bad constitution and is with difficulty preserved, but it is one of the most striking and attractive of stage flowers.

8. Heath's Emerald: A good show flower of no great refinement. Its petal is pointed, and the green light colour a good common violet. Its faults are an extravagant calyx and an eye hardly large enough.

9. Hudson's Apollo: A good flower of great refinement, and when large enough fit for exhibition. Petals pointed; edge pure but light green; colour chestnut; paste and substance sufficient.

10. Leigh's Colonel Taylor: This most celebrated of all Auriculas, which for many years after being let out was catalogued at three guineas a plant, is still perhaps the most refined in cultivation, and is a tolerably good variety for exhibition. But it has many faults: its petal is pointed; its paste is thin; its stem is weak; and owing to its sickly constitution it is inconstant. A plant in health will carry nine pips. Its colour is a beautiful purplish claret, the edge as green as grass, the substance leathery, and the pip flat; nor does the tube bleach.

11. Lightbody's Sir John Moore: A robust goggle-eyed flower of a pretty light purple ground colour, mixed edge, and crumpled petal; very fit for the border.

12. Lightbody's Star of Bethlehem: A robust grower, with a sturdy stem carrying nine pips well, and requiring bit and bridle rather than spur. The petal is flat but pointed; the edge pure but not deep green; colour bright violet purple, and zones equally divided; the richest looking flower I possess as long as the sun is kept from it, but it bleaches at last; grown without stimulants, it will occupy the first rank for exhibition.

13. Litton's Emperor: A bold starry flower with sharp points to the petals; flat, and of good substance and paste; colour a dark violet; edge when green very good; stem too long; forms a good truss, and is good for stage or exhibition, but the plant is small though healthy.

14. Oliver's Lovely Ann: Useful rather than ornamental; edge light green or grey; colour chestnut; flat and circular; forms a smooth spherical truss, whether with few or many pips.

15. Ollier's Lady Ann Wilbraham: Has a pure green edge and a pointed petal, with dark chestnut or mahogany ground colour. Its fault is want of refinement.

16. Page's Champion: One of the few good green edged exhibition flowers, though it is never flat. The green of its edge will rank with that of Apollo, Freedom, or Lord Lynedoch; the pip is large, and the ground colour an attractive violet, but unlike the violets, its tube never bleaches. It has good foliage, and lasts long in perfection.

GREY EDGED.

17. Beeston's Fair Flora: Petal pointed, and pip usually too small; edge more green than grey; but it is an attractive flower of good properties. Ground colour chestnut purple, and eye good, and is well worth attention.

18. Chapman's Maria: Not a show flower, but of the most singular beauty from its colour, though the petal is neither circular nor flat. It is of the most intense and pure violet, resembling that of deep coloured Elder wine, or the colour of lampblack, and unlike that of any other Auricula.

19. Cheetham's Lancashire: As a whole this is the most perfect of Auriculas, though its edge is rather green than grey; with that exception it has not a fault. Its petal is almost as rounded as that of Matilda or True Briton, and its pip is much more flat than either of theirs. Its colour is not so decided a black as that of Freedom, Complete, or its most evident parent, Bolivar; and perhaps none the worse for that. Robert Lancashire deserves a medal for raising it.

20. Dickson's Matilda: Why this should ever be classed among the greens is difficult to say. I have never seen it otherwise than as a grey or a white. It is a beautiful thing, but nearly worthless from its glaring faults. Its petal and pip are the most perfect of all, but the footstalk is too short for a good truss to be possible, and hence it often cups, and the pips are of unequal size. When caught at its best it resembles an extra good Britannia, but its tube soon bleaches, and notwithstanding its substance it soon withers. Its constitution is as hardy as any, and the edge of the leaf is curiously but minutely serrated like that of some Aloes. Its foliage and the whole plant dumpy.

21. Dickson's Unique: Either green or grey. A small but pretty Auricula, with a rounded petal and dark brownish violet body colour; very ornamental.

22. Fletcher's Mary Ann: Not a striking but a solid flower. It has no quality lower than second rate, and none first; and from its constancy it will often stand first, though its eye is frequently too small. Its paste and ground colour are sometimes too evenly circular, which gives it a tame appearance. Good foliage, and hardy.

23. Fletcher's Ne Plus Ultra: A most striking flower, whether on the stage or for exhibition. Bolder than Emperor, colour nearly black; pencillings like daggers, in the form of the Aurora Borealis in the sky, but a bad constituted plant and difficult to keep in health.

24. Headley's Stapleford Hero: Apparently a seedling from Mary Ann; bolder in character and less uniform than its parent, but pointed in petal and markings, which are of the same colour as Mary Ann.

25. Headley's Superb: Too similar to Waterhouse's Conqueror of Europe to be held distinct, though it is not identical with it. The plant differs, though the bloom does not.

26. Lightbody's Alma: A good second-rate flower with a pointed and crumpled petal, but one which apparently might be caught for a show. Ground colour dark mahogany, with a good grey edge and orange tube, but not very attractive on the stage.

27. Lightbody's Richard Headley: This promises to be a fine thing. An entire truss such as two pips of mine would be very difficult to surpass. The colour is a plum. The foliage is very peculiar, being very smooth, Pear-shaped, glaucous, and slightly mealed. As it threw up three trusses, and all from the heart, it may not be an inconstant flower because only two pips were presentable.

28. Maclean's Unique: A bad grower but a good flower, apparently intermediate between Mary Ann and Stapleford Hero; but my plant was defective.

29. Smith's General Bolivar: A fine thing, and beyond question the parent of Lancashire, to which it is often equal, though it requires what its seedling does not—to expand under a hand-glass in the sun, or it will cup, and not open out flat. It is superior to Ringleader, from which doubtless it sprang.

30. Sykes' Complete: A poor constituted plant but a determined flower, and an indispensable to stage or exhibition table. Its colour is nearly a pure black; petal rounded; edge good; pip not perfectly flat.

31. Waterhouse's Conqueror of Europe: Pip very large, and rounded and flat; truss good; deficient in ground colour, which is chestnut, except sometimes in a maiden plant; good grey edge; very constant, but the flower is coarse, often with a distinct stripe of white or yellow running down the centre of each petal, which sadly disfigures it. Still it is a show flower.

WHITE EDGED.

32. Campbell's Robert Burns: A pretty feminine-looking flower, with foliage mealy, and whole habit as neat as a quakeress; colour generally light violet but inconstant, and pip equally so, some being

rounded and some pointed, occasionally on the same truss. The two outer zones are usually too narrow, giving it the appearance of a quoit.

33. Cheetham's Countess of Wilton: Small late-blooming chestnut plum, with a good edge and bold markings; foliage without meal, cramped, light coloured, and slightly serrated like that of a Lettuce; not a healthy constitution.

34. Hepworth's True Briton: The only white edge that can compete with Taylor's Glory. Next to Matilda it has the most perfect pip of any; but it rarely flattens, because from over-size it crumples backwards when fully expanded. The white edge is not sufficiently decided, but the dark velvet plum contrasts well with the edge. It has clean, smooth, dark green foliage, without meal, but fleshy, and therefore more subject to rot from over watering than any I know of.

35. Lee's Earl Grosvenor: A late flowerer, violet and white; foliage mealy; subject to canker. A good flower, but said to be surpassed by Gairn's Model.

SELFS.

36. Clegg's Blue Bonnet: Colour what in the Dahlia is called purple, being a light reddish plum. The paste is good, and whiter than that of most Auriculas; but though a fine trusser it has a coarse look, and the foliage is light coloured, spotted, and unhealthy.

37. Grimes' Flora's Flag: A fine blue self, without paste or shape. To the border!

38. Maltby's Oxonian: Far over-praised, and little if anything better than Key's Jupiter, which I have discarded. Constitution feeble; colour good, a very fine violet black, and very velvety; paste almost wanting, and thin where it is; pip round, and truss good.

39. Scholes' Ned Ludd: To the border. Worthless.

40. Spalding's Blackbird: A fine self, one of the best. Colour deep violet brown, nearly black; petal rounded, large, and circular, but reflexes from over-size when fully open; paste sufficient and good; constitution healthy.

SCOTTISH PANSY SOCIETY.

THE Thirteenth Annual Competition of this flourishing Society was held in the Zoological Gardens, Edinburgh, on the 10th ult. The competitors were more numerous on this than on any former occasion, the number of blooms entered being about 1,400, exclusive of Pansies in pots, which were not very numerous. The flowers were all in fine condition, a great improvement being observable in the tidy, clean way in which the whole of the blooms were staged; and considering the continued rain which prevailed for some days previous this must have been no easy task for the exhibitors to accomplish, and we have no doubt that if the weather had been finer the show would have been even larger than it was. Another very cheering feature connected with this society is its extending influence every year, as new competitors from some hitherto unrepresented districts came on this occasion, representing

every town or district, from Kilmarnock on the west to Montrose on the east; and from the inquiries the management had for schedules this year from Inverness, Orkney, and Oban in the north, the presumption is that these places will be represented at the next show. The society is also taking root south of the Tweed, having this year been joined by that indefatigable florist, George Hadfield, Esq., Haltwhistle, in Cumberland, he having entered the lists and come off successful.

The following were the successful competitors, with the names of the winning flowers:—Nurserymen's class, 24 blooms, the first prize was awarded to Messrs. Downie & Laird, West Coates Nursery, Edinburgh, for Duchess of Wellington, Nonpareil, Flower of the Day, Royal Standard, Mr. Mason, Miriam, Anadine, Lord Cardigan, Colonel Wyndham, Jeannie, Miss Talbot, William, Lord John Russell, Sir Colin Campbell, Yellow Model, Countess of Roslyn, St. Andrew, Sir John Cathcart, Beauty, Matchless, Una, Cyrus, Lady Mathieson, and Indian Chief; 2nd, to Messrs. James Dickson & Sons, Inverleith Nursery; 3rd, Mr. T. H. Douglas, Rose Bank Nursery; 4th, Messrs. Robertson, Paul & Co., Paisley. The leading blooms in the winning stand in this class were Duchess of Wellington, Anadine, Lord Cardigan, Jeannie, Yellow Model, Countess of Roslyn, and Lady Mathieson.

Gardeners and Amateurs' Class, 18 blooms:—1st, Mr. Fraser gardener, Belmont, Edinburgh, with Sir Colin Campbell, Flower of the Day, Satisfaction, Miss Talbot, Jeannie, Duchess of Wellington, Cyrus, Countess of Roslyn, Duke of Sutherland, Nonpareil, Sir John Cathcart, Miss Walker, Lord Palmerston, Miriam, Sir C. Napier, Sovereign, Monarch, and St. Andrew; 2nd, Mr. M'Farlane, gardener, Barnton; 3rd, Mr. Reid, gardener, Broomfield; 4th, to Mr. Shearer, gardener, Yester. In this class the competition was very strong, and the difference between the 1st and 4th was but small—the first stand, however, contained one or two blooms of rare excellence. Countess of Roslyn was awarded the prize as the best light ground flower in the room; as also the prize for the finest Pansy of any class. Jeannie, Cyrus, and Duchess of Wellington were also very fine.

Gardeners and Amateurs' Class, 12 blooms: 1st, Mr. M'Farlane, with Jeannie, Cyrus, Climax, Sir C. Campbell, Emperor, Nonpareil, Lord Dunfermline, William, Indian Chief, Sir C. Napier, Miss Talbot, and Royal White; 2nd, Geo. Hadfield, Esq., Haltwhistle, Cumberland; 3rd, Mr. Dunlop, gardener, Inglis Green; and a 4th to Mr. Fraser. Here also the competitors were numerous, and the judges had great difficulty in coming to a decision. The best blooms in the winning stand were Sir Colin Campbell, Jeannie, William, and Indian Chief.

Gardeners and Amateurs, 6 blooms: 1st, Mr. Young, South Bridge, with fine blooms of Jeannie, Mrs. Dodwell, Countess of Roslyn, William, Cyrus, and Sir Colin Campbell; 2nd, Mr. Beveredge, Inveresk; 3rd, C. Steuart, Esq., Chirnside.

Amateurs' Class, 6 blooms: 1st, Mr. Hadfield, who produced the following very fine blooms—Jeannie, Royal Standard, Miss Talbot, Lord John Russell, and Mary Taylor; 2nd, Mr. Stuart; 3rd, Mr. Young.

12 Blooms in classes—4 light grounds, 4 yellow grounds, and 4 selfs

—open to all: 1st, Mr. Reid, with very fine blooms of Mrs. Dodwell, Alice, Royal Standard, William, J. B. Gough, Cyrus, Miss Bentley, Indian Chief, Sir Colin Campbell, St. Andrew, Beauty, and Anne Cadell; 2nd, Mr. John Hampton, Newport, Dundee; 4rd, Mr. James Gibson, Braehead House, Cathcart, Glasgow. In Mr. Reid's stand were very fine blooms of Miss Bentley (seedling), and Indian Chief. This was the finest dark self in the room, and Anne Cadell (seedling) was also good.

Sweepstakes: Messrs. Dickson & Co., Leith Walk Nursery, with Sir C. Campbell, Cyrus, Jeannie, Sovereign, Lord Raglan, Sir J. Cathcart, Miss Talbot, Indian Chief, William, Miriam, Lord Palmerston, and Sir C. Napier. Cyrus, Jeannie, Indian Chief, and Lord Palmerston were very fine in this stand.

Pansies in pots: 1st, Messrs. Dickson & Sons; 2nd, Mr. T. H. Douglas.

Amateurs' Prize for Pansies in pots: Mr. Young.

Single Blooms, Gardeners' Class: Best self, Mr. Reid, for Indian Chief; Yellow ground, Messrs. White & Sinclair, Paisley, for a remarkably neat bloom of Emperor Napoleon; Light ground, Mr. Fraser, for an extra fine bloom of Countess of Roslyn—this was also the finest bloom in the room.

Single Blooms, Amateurs' Class: Dark self, Mr. Hadfield, for a very fine Jeannie; Yellow self, Mr. Young, for Mrs. Dodwell; Light ground, Mr. Saunders, Juniper Green, for a very fine bloom of Countess; Yellow ground, Mr. Young, for a good Cyrus.

Seedlings were numerous, and many of them very promising. Mr. Frazer was awarded a First Class Certificate for a very fine yellow ground flower named Mrs. Hope. Certificates were also awarded to Mr. M'Nab, Ingles Green, for a light ground Pansy named Lizzy. Mr. Campbell, gardener, Pollock, Glasgow, had a Certificate for a light ground flower named Maude; and Messrs. White & Sinclair, Paisley, a Certificate for a flower named Lady Napier.

During the day the Annual General Meeting of the Society was held, which was numerously attended. The society unanimously resolved to hold their next exhibition in Glasgow. The office bearers were then appointed; and the treasurer having intimated that their funds were in a sound and healthy condition, and that notwithstanding the heavy pressure in the money market of late, the society's stock was above par; he presented his annual subscription list, when all present contributed liberally, many of them doubling their last year's donation, and the very handsome sum of £20 was subscribed. This, of course, is entirely distinct from members' entrance money, and shows the unanimity and good feeling prevailing in the society.

THE ORIGINAL RIBSTON PIPPIN APPLE TREE.

THE accompanying cut is a representation of this celebrated tree as it stood in 1828. The only information extant respecting its origin is contained in a part of a letter preserved in this place, written by a descendant of the introducer, consequently its authenticity may be relied

upon. A great portion of the letter is quite illegible from wear, the following being the only portion that can be deciphered:—"My grandfather, Sir Henry Goodrick, being at Rouen, in Normandy, in ye year 1707, he eat an Apple of very superior flavour, and saved ye seeds, which he sent to Ribston, where they were sown, and ye produce



planted in ye park. Out of ye trees planted five proved bad and two proved good. They are growing yet, and never were grafted, and one of these trees is ye celebrated Ribston Pippin, which," &c., &c. What became of the other "good" Apple which is here spoken of I cannot ascertain anything further than that it died and was cut down many years ago, therefore I fear that it is quite lost. The old stem of the Ribston Pippin was blown down, as is shown in the cut, during a

severe storm in 1815, after which only one large branch remained, which was carefully propped up, and while in this state it bore fruit for many years. It lingered until 1835, when it died, and was cut down. A young shoot had previously put forth from the old stem about four inches below the surface of the soil. This has been encouraged, and is now a tolerable tree, from which I have gathered as fine fruit, both as regards size and colour, as I ever saw in any part of England. The old man who cut down the original stem is still at work on this place; he vouches to me that the young shoot was never either budded or grafted, and he has seen the tree almost daily ever since. The situation is a very cold exposed one, consequently I do not expect the tree to be long lived; but some that we have upon the walls here would make those writers upon the deterioration of this fruit quake for their darling theory were they to see them in all their luxuriant health and vigour.

Ribston Park, Wetherby.

THOMAS W. ABBOTT.

NOTES ON CRYSTAL PALACE EXHIBITION AND GROUNDS.

THE lawn appeared in excellent keeping; the spring flowering plants in the borders had not been removed, and many were yet in beauty, especially the pretty *Cheiranthus Marshalli*. The American plants begin now to make a display; and when these groups get more massive by age, and a little more irregular in outline, which the stronger growth of individual kinds will produce, the garden foreground, as seen from the terraces, will have a bolder effect, and the terraces themselves will be improved in the same way. The want of more planting on the ground beneath the terraces, is to our mind quite requisite, to balance the great extent of gravel walks, which meet the eye everywhere, when seen from above, and which in public grounds, where large masses of people have to be accommodated, could not be avoided, without exposing the grass to injury, by driving people to walk over it. The *Deodars*, *Cedars*, and *Araucariás*, are progressing, and will soon give a decided character to the walks which they accompany; but we hope, for the sake of all that is refined in taste, that no more attempts will be made to DECORATE the circular beds round their stems—turf them over, by all means.

We are more than ever convinced that a part at least of the Exhibition should be held under marquees, on the lawn facing the Palace, not only for the comfort of the visitors, but for the better display of the plants. The only plants we should like to see in the Palace would be ornamental leaved plants, and perhaps in the season *Azaleas*, particularly the warmer coloured kinds, which we noticed harmonised admirably with the interior; giving every credit for the superior arrangement of the plants, very evident on the last occasion, and which we think Mr. Eyles can scarcely improve. The crowds who visit these exhibitions find it difficult, unless they are there very early, to get a good view of the plants, &c., and a detailed examination is out of the question—

besides the many objects in the building necessarily interfere with the free passage round the stages ; and from the number of people in the palace at one time, the air in the after part of the day becomes unpleasantly over-heated for sensitive individuals. On these grounds, dividing the Exhibition would be a decided improvement to all parties ; for we heard complaints from some of the exhibitors, that the petals had dropped from their Pelargoniums and Roses by evening through the over-heated—or let us say deteriorated atmosphere, which of course rendered them useless for future display. We may be met with the question—What would you do on wet days ? We think, however, even this could be managed without much inconvenience by a little judgment in arranging the tents.

Of course we waited to see the grand display of water works, on which so much has been said, having only seen them in detail before. To obtain what is considered the best view of them, we stationed ourselves on the bank beyond the lower basin, having the entire series in view, with the Palace as a background. The day was favourable, there being scarcely a breath of air to disturb the perpendicular column of water thrown up by the large jets, which after rising to an immense height descended very gracefully in a flood of silvery spray. The general effect, when the entire series came into play, was decidedly imposing and grand, and produced the finest spectacle to be seen in Britain. The main jets in the lower basins, as well as the secondary ones with the beautiful basket-work device encircling them, are as good if not better than anything we have seen on the Continent ;—however, we are of opinion that the small jets which form the base of the column (if I may so call it) are neither sufficiently wide nor high to balance the main jets when in play ; or, in other words, are not proportionate to the height of the column of water, and we are not quite sure but that a near approach to proportion would be made by increasing the diameter of the column by having a wider orifice to the jet ; something of course would be lost in height, but we think the effect on the whole would be more satisfactory, and we decidedly object to the puerile squirts dotted over the basins, as detracting from the grandeur of the rest. The wing fountains, to the right and left of the main lower series, and placed on higher levels, were very effective from the spot on which we stood, particularly the one to the left, nearest the rock garden, which has the advantage of a background of trees, against which the water, when lit up by the sun, produced a beautiful effect. This brings me to what I consider a mistake in the planting of the lower part of the grounds (which has been noticed in the *Florist* before), that between the lower water-works and the boundary skirting the railway, nothing but evergreen trees should have been planted : we would have employed the darkest foliaged Conifers—as the Scotch, Silver, and Austrian Pines—our object being to form a dense background for the fountains, which would have greatly augmented their effect when seen from the Palace. Those who have witnessed the display at Versailles, and many of the fountains in Italy, backed by dark-foliaged trees, know how far more beautiful water appears under such circumstances, than when viewed solely against the sky.

Of the whole, that part of the water-works comprising the central fountain, opposite the steps to the terraces, the two temples and the long cascades on each side of the central walk, will be popularly considered the most striking. We should have liked the central jets (seven in number) in the fountain concentrated into one; but notwithstanding this, this series is exceedingly well adapted to the style of gardening, and has been admirably carried out. Had the designs been confined to this and the terrace fountains, a more continuous display could have been supplied, which, to our minds, would have gone far towards compensating for the loss of the gigantic works at the lower basins; and possibly might have prevented the Palace from being disfigured by the water towers on each wing. In the building itself the only part which looks out of character is the square elevations at the lower or southern extremity of each wing, which certainly do not harmonise with the transepts, and reminds one of the worst features of the Hyde Park Palace.

The Rose Temple (!) is as ugly as ever; and we were told the Roses, &c., refuse to grow and cover the so-called temple. It were well if it could be covered at any cost, or buried, which would be better still.

G. F.

THE ROYAL AND NATIONAL TULIP SOCIETY.

THE ninth annual meeting of this Society was held at the Botanic Gardens, Manchester, on Friday, May 29. The Exhibition was much too late for the Southern growers, yet there was a large number of blooms staged, including some beautifully marked flowers, but the majority of the blooms were certainly below the average size. Purity, form, and marking, all agree to be most essential points; but below a certain size there is nothing noble about them. The stand that obtained the second prize in twelve blooms we would not have placed at all—they were too small to notice.

There were but few stands exhibited but what could have been greatly improved with better arrangement of colours, and placing the largest blooms at the back instead of the front, as many did on this occasion.

In new or but little known flowers we observed Slater's Masterpiece, a pure and finely-marked flamed bizarre of excellent form; Groom's Mr. Perkins, a strongly flamed flower is very fine in shape; also Peter Ralt and Groom's Omar Pacha, of the same class. Sir J. Paxton, and Willison's King were fine as feathered bizarres. In byblœmens, Willison's Gem of Gems, Byzantium, and Coupe d' Hebe were fine, feathered. Ftamed byblœmens, Walker's Duchess of Sutherland and Nepaulese Prince were conspicuous. Roses consisted of Sarah Headley, very fine; Vicar of Radford, alias Fanny Ceito, and Aglaia, feathered Fanny Elsler, Rose Celestial, and Lachisis were very good flamed kinds. These were staged for competition.

Twelve collections each of 12 blooms, 26 of six blooms—of which one half were rectified and the remainder in the breeder state—and

89 collections each of three blooms, were staged for competition. Of these latter 22 collections were of feathered flowers, 35 of flame and feather, and 32 in the breeder state. When arranged finally, and viewed as a whole, the effect was exceedingly beautiful. From the number of collections brought together, the duty devolved upon the judges was of a most onerous character; and we were not therefore surprised that they exhibited signs of impatience, as the hour at which they should have commenced their labours passed without the completion of the needful preparation. We note this because punctuality is a duty exhibitors and executives owe to judges, and any infraction upon the time allowed for making the awards is as injurious to themselves as it is unfair to the judges. After a brief delay the large house was cleared of the competitors, and the judges, Messrs. Norman, of Woolwich; Houlker, of Blackburn; and Mart of Nottingham, entered upon their duties. The secretaries and committee of management deserved and received the thanks of the exhibitors for conducting this very successful meeting. The Exhibition for 1858 will be held at Sheffield.

The following are the awards:—Mr. Charles Turner, of the Royal Nursery, Slough, came first. His flowers were Fanny Elsler, fl. ro., Mr. Sanderson, f. biz., Addison, f. byb., Mary Headley, f. ro., Alcon, fl. byb., Purple Perfection, f. byb., Lachesis, fl. ro., Lord Hardinge, fl. biz., Polyphemus, fl. biz., Heroine, f. ro., Polyphemus, f. biz., and Surpasse le Grand, fl. byb. This stand was a complete walk over. It contained finely grown, pure, and well marked flowers admirably arranged. Second, Mr. Samuel Bromiley, of Macclesfield, with Comte de Vergennes, Queen of the North, Appelles, Heroine, Princess Royal, Charles X., Lac Violet Quarto, Paul Pry, Queen Charlotte, Aglaia, and Duke of Devonshire. Third, Mr. W. Lea, of Leigh, Lancashire, with Heroine, Comte de Vergennes, Arlette, Aglaia, Queen of the North, Baguet, Lord Denman, Bacchus, Charles X., Magnum Bonum, Captain White, and Duke of Devonshire. We detail the arrangement in each stand, the first flower commencing the upper tier at the left, and reading to the right. There was a total absence of arrangement in the above. Fourth, Charles Williams, Esq., of Tottenham, London, with Lalla Rookh, Bijou, General Barnevelde, Polyphemus, Lady Catherine Gordon, Pompe Funebre, Juliet, Mary (Crook), King Arthur, Triomphe Royale, Queen of the North, and Vivid. Fifth, The Rev. S. Creswell, Radford Vicarage, Notts, with Polyphemus, Heroine, Sarah Ann, Victoria Regina, Mary Lamb, Sarah, Aglaia, Sovereign, Miss Edgworth (alias Triomphe Royale), Earl Douglas, Merit (or Pilot), and Lord Denman. Other competitors in this class were Mr. Samuel Barlow, of Stakehill, Middleton; Zachariah Peacock, Esq., of Denton; Thomas Adams, Esq., of Derby; Mr. Joseph Godfrey, of Chellaston; Mr. John Slater, of Manchester; Mr. John Hart, of Stockport; and Mr. William Willison, of Whitby.

In the six bloom class, for private growers only, John Turner, Esq., of Godley, was first. The flowers were Rose Lac, Pilot, Bacchus, Miss Ada (Martin), a bright, rich, new feathered Rose, in the style of Heroine, but with a narrower feather, Masterpiece, and Queen of the

North. Here we were unfortunately unable to agree in the decision, the flowers being small and under-grown, and Ada, Masterpiece, and Pilot, alone possessing special claim, in our opinion, on the score of marking. The flowers in the second stand, shown by Mr. S. Barlow, we thought decidedly superior. They consisted of fine specimens of Sovereign, Aglaia, Bacchus, Polyphemus, Heroine, and Maid of Orleans, Mr. Forman, of Chellaston, was third. The varieties were Pilot, Sovereign, Princess Royal, Maid of Orleans, Triomphe Royale, and Heroine. The fourth prize was awarded to Mr. R. Nunnerley, of Macclesfield, who showed six clean and pretty but small flowers, they were Charles X., Pilot, Violet Amiable, Bacchus, Heroine, and Aglaia. Fifth, Mr. William Lea, with Heroine, Aglaia, Violet Amiable, Bacchus, Charles X., and San Joe. Sixth, Mr. Joseph Godfrey, with Pilot, Sovereign, Queen Charlotte, Maid of Orleans, Triomphe Royale, and Heroine. Seven other collections were shown in this class.

Three Feathered Flowers.—First, Mr. S. Barlow, with Masterpiece, Heroine, and Maid of Orleans. Second, Mr. Joseph Godfrey, with Maid of Orleans, Sovereign and Heroine. Third, John Thorniley, Esq., of Heaton Norris, with Heroine, Violet Amiable, and Polyphemus. Fourth, Mr. W. Lea, with Heroine, Baguet, and Appelles. Fifth, ditto, with Maid of Orleans, Sovereign, and Aglaia. Sixth, Mr. Samuel Bromiley, with Charles X., Queen of Sherwood, and Comte de Vergennes. Seventh, Mr. G. Mart, of Leigh, with Charles X., Baguet, and Heroine. Eighth, Mr. S. Treacher, Wycombe, with Lady Stanley, Mary Lamb, and Charles X. Ninth, Mr. Henry Travis, of Royton, with Comte de Vergennes, Unknown, and Duke of Devonshire.

Three Flamed Flowers.—First, Mr. C. Turner, with Triomphe Royale, Chellaston Byb., and Mr. Perkins. Second, ditto, with Alexander Magnus, Magnificent, and Pilot. Third, Mr. Joseph Godfrey, with Princess Royal, Aglaia, and Pilot. Fourth, Rev. S. Creswell, with General Barnevelde, Polyphemus, and Aglaia. Fifth, ditto, with Pilot, Miss Edgworth, and Bloemart. Sixth, Mr. Charles Turner, with Omar Pasha, Fleur de Marie, and Miss Porter. Seventh, ditto, with Aglaia, Polyphemus, and Maid of Orleans. Eighth, Mr. S. Barlow, with Aglaia, San Joe, and Violet Brun. Ninth, Mr. W. Whittaker, of Manchester, with Aglaia, Bridesmaid, and San Joe.

Breeder Tulips, Sixes.—First, Mr. James Parkins, Derby, with Catherine, Princess Royal, a Chellaston, and three Seedlings. Second, Mr. John Slater, Manchester, with Sobraon, Earl of Warwick, Gem, Charles Albert, Leander, and Anastasia. Third, Mr. William Lea, with Maid of Orleans, Unknown, Seedling ro., Kate Connor, Charbonnier, and Sir Joseph Paxton. Fourth, Mr. William Willison, of Whitby, with Sir Joseph Paxton, Queen, Seedling, King, Juliet, and Superba. Fifth, Mr. John Slater, with Lord Valentia, Seedling, Florian, Seedling P. 2, Anne Hathaway, and Lady Catherine Gordon. Sixth, Mr. John Hart, Stockport, with Juliet, Anastasia, Seedling, Duchess of Sutherland, King (Willison), and Seedling. Seventh, Mr. Samuel Barlow, with Duke of Devonshire, Godet Parfait, Lady Catherine Gordon, Pompe Funebre, Delicata, and Kate Connor.

Threes.—First, Mr. Henry Travis, with Seedling Queen of England

and Duke of Hamilton. Second, Mr. W. Whittaker, with Queen of England, Maid of Orleans, and King (Willison). Third, John Peacock, Esq., Denton, with Sir Robert Peel (seedling), Sir Joseph Paxton, and Nina (seedling). Fourth, Mr. James Parkins, with Princess Royal, Catherine, and Seedling (Storer). Fifth, Mr. Samuel Barlow, with Princess Royal, Rose Celestial (Barlow), and Captain Nolan. Sixth, Mr. Luke Ashmore, with Anastasia, Duchess of Sutherland, and Seedling No. 8. Seventh, John Peacock, Esq., with Miss Forrest, Polyphemus, and Anne McGregor (seedling). Mr. Willison's prizes were awarded to Zachariah Peacock, Esq., for Juliet, Exquisite, and Gem; and Breeders, Sir Joseph Paxton, King, and Juliet.

NOTES MADE DURING A JOURNEY TO PARIS.

No. II.

The Gardens of Versailles.—Starting early one morning by railway we soon passed the charming village of Bellevue, with its pretty villas, and found ourselves in the quiet, ancient, and quaint town of Versailles. Turning down a narrow street, we entered a large yard, and found the head gardener, Mons. Charpentier, at home. In him I immediately recognised the most gentlemanly deportment, and that frankness of manner and obliging disposition which characterises the Frenchman wherever you meet him. He could not speak English, nor myself French, but by the aid of an interpreter with whom my kind employer had provided me, we managed to exchange ideas very well. And I must say that of all my introductions (and they were many and most agreeable) this was the most gratifying.

The kitchen garden here is of great extent, comprising thirty acres; and on one side of it is a broad raised terrace walk, which overlooks the whole of it. In the quarters there are many pyramidal fruit trees, trained, however, with less precision than those of Mons. Cuppe at the Jardin des Plantes. Pines are grown very well here, producing fine fruit from very small compact plants. In their young state they are planted out, being afterwards potted and grown in an atmosphere richly fed with the ammonia exhaled from a chamber of fermenting dung beneath them, the pots being plunged in tan.

In forcing Vines they have no such houses as we have, and only use the Chasselas de Fontainbleau for this purpose. They have the Vines trained upon stakes in the garden, and cover a *different portion* of this trellis every year with a small wooden frame, enclosing a flat copper hot water pipe, and being lined with hot dung round the outsides. They attach great importance to their custom of forcing a different portion of the Vines every year, a position which I venture to dissent from, as calculated to promote their success.

There was a vast provision of Strawberries in pots for forcing, principally Alpines, with some of Keens' Seedling, and I noticed many Plums and Cherries in pots, with plants of a small green Fig. They have

on enormous quantity of small frames, made from old ship timber, and not painted; the lights are about 3 feet 6 inches wide. These are placed upon hot-beds, with a hot-water pipe to run along the front of them, and in these are forced Strawberries, French Beans, Melons, and young Pine plants. This department is of immense extent here, and they have the manure from 200 cavalry horses. The soil of all the French kitchen gardens is very rich in manure; in fact, they seem lavish of it in this way—robbing the farm for the benefit of the garden.

In the culinary department Escarolle or Batavian Endive was largely grown, as also Spinach and Cardoons. I saw some fine single plants of Strawberries here grown *a la Anglais*, while every other bed which I met with was run together in a glorious medley. Asparagus is here grown largely, and of the finest quality, for the imperial table. The mode of cultivation I will here describe; it is for the *Asperge Blanche*, or Large White Asparagus.

The ground is highly manured and deeply trenched, commixing the manure well and thoroughly with the soil. It is then divided into beds 3 feet 6 inches wide, with two feet alleys between them. On these beds two rows of Asparagus are planted, two feet apart. These receive the ordinary culture till autumn, after being planted two feet apart in the row in March. At that season they receive another heavy coat of manure, and a foot of soil is taken from the alleys and superimposed upon the beds. In the following autumn they are fit for forcing, and produce the largest Asparagus; the shoots which I saw were very fine, notwithstanding that the beds were a perfect chaos of weeds six inches high, while every alley was hoed and raked in the most fastidious style of neatness. In the market gardens of Paris, where Asparagus is grown on the same plan for forcing, the soil is immensely rich, but they do not grow weeds, as is the case in the imperial garden; they are too good economists.

Most certainly, the French excel us in the culture of this plant, but I am doubtful if they do so from superior skill. Their climate assists mainly in elaborating the sap in that degree which produces these very fine Asparagus branches.

One of the most remarkable features in French gardening is the very homely manner in which their houses are constructed; another, the effect produced by the most common plants often repeated, as the Marigold, &c.; and the third is the utter absence of order and neatness throughout every department (excepting always the pretty garden of the Tuilleries). But I am digressing too far.

Unfortunately the grand fountains of Versailles had ceased to play before my visit, and instead of my seeing mermaids and Tritons with wet and dishevelled locks, I found them as dry as a brilliant October sun could make them, each of them having a dry smile, and seeming to say, "Oh! you're too late for the fair." I therefore sought consolation in the labyrinth of vistas, arcades, and borceaux of this wonderful place, and was richly rewarded in seeing the magnificent Orange trees in the old greenhouse under the terrace, which are unsurpassed for beauty, grandeur, and antiquity.

We now walked a long distance through the most stately avenues, till we came to

THE PETIT TRIANON,

Where there was nothing very remarkable excepting the blaze of beauty produced by the great number of *Salvia fulgens*, which are used there. This is a plant always bright and beautiful, but here it was brilliant beyond description. We pursued our way to

THE GRAND TRIANON,

Where the display of Dahlias was quite as admirable as the *Salvias* just mentioned.

Indeed, the superior brilliancy of all the flowers here strikes an Englishman very forcibly, and forms one of the most striking proofs of the climate of France being superior to that of this country. On my way home I called at the nursery of M. Truffaut, at Versailles. This gentleman is renowned for the great improvement he has made on the flowers of the China Aster. He has a nice establishment, most noticeable for his plan of planting out Camellias and Indian Azaleas in span-roofed houses to make specimens rapidly. This seems to answer perfectly. I also saw the nursery of Thebaud and Ketel  er, a large and well managed establishment.

On another occasion I went to

ST. CLOUD,

A palace of the Emperor, situated charmingly in a grove of fine Chesnuts (almost the only really fine trees I saw, except the Oaks at Fontainebleau). It commands from a terrace walk a fine view of Paris. It is a nice quiet secluded place, full of green vistas, but the gardening deserves not a passing remark. In going to St. Cloud we crossed a beautiful reach of the Seine.

At Neuilly is the nursery of M. Le Michez, who has a fine collection of Camellias in a large curvilinear house, which he calls a Jardin d'hiver. In it is a futile attempt at the picturesque: a crooked brook writhes to the house in the most agonising forms.

HENRY BAILEY.

THE HORTICULTURAL SOCIETY'S EXHIBITION.

NOTWITHSTANDING the opinion we have heard expressed within the last eighteen months that Chiswick and its exhibitions were dead—or, if not altogether so, in that moribund state that success was next to impossible if exhibitions were attempted, we have now the *great fact* to record, that not only have they been revived, but that the experiment has proved eminently successful; and that, confessedly, the best exhibition in many respects seen for years—if ever seen at all—was that witnessed at the Society's Gardens, on the 3rd and 4th of June last. It was argued by those in favour of the abandonment of Chiswick and its exhibitions, that the Gardens were too far from town; independent of which, it was said that the monster horticultural f  tes of the Crystal Palace Company, with their attractive building and grounds, and (to

exhibitors) still more attractive prizes, would enlist all that was worth exhibiting in plants and fruit: added to which, the exhibitions of the Botanic Society, in the Regent's Park, would (said they) leave neither productions to exhibit, nor a company disposed to go as far as Chiswick to inspect them. The Council of the Horticultural Society were not, however, it appears, to be deterred from their resolve of holding an exhibition by such arguments, potent though they appeared to be. The Council considered that a well-conducted exhibition would convince the horticultural world that the principles they had enunciated were not to be suffered to lie dormant and inert, but were developing into a vigorous reality—at least, so we interpret it; and they might perhaps have calculated (and if so, it was on good evidence), that the Chiswick Gardens had not altogether lost their charms and quiet beauty because rivals had been established elsewhere, and perhaps were more easily attainable; but that of the many thousands of the *elite* of the fashionable world who were wont to honour the Chiswick exhibitions as the most *select* of London out-door fêtes, some might yet be induced to visit them again, and inspect the beautiful productions of British gardens, and on that spot, under the influence of former associations, witnessing the select and fashionable company which, despite the unfavourable appearance of the morning, honoured the exhibitors with their presence, gave the affirmative to the Council's experiment, and no doubt can be entertained that had the weather looked more propitious in the morning the company would have been as numerous as it was brilliant. Nor were the company disappointed; for, to the honour of the exhibitors, be it said, they came out nobly on the occasion, many of them having reserved their best plants for Chiswick, and some, to do honour to the old ground, abstained from exhibiting the previous week at the Crystal Palace; and the result was, as we have before stated, a first-rate exhibition, excepting perhaps fruit, of which, though excellent in quality, there was but a very short supply; and we fancied we had seen the collections of Azaleas better in former years, though it must be admitted many of the specimens exhibited in mixed collections were as magnificent as could be imagined. In the miscellaneous groups (mixed stove and greenhouse), the exceptions to well-grown specimens were very few indeed, considering the large numbers staged, but some few very large plants were evidently past their best, and no longer presented the vigorous growth or rich profusion of bloom to enable them to compete with younger and better flowered specimens. It requires an effort to throw away large plants; but unless they can be grown to furnish a due quantity of bloom, it is better to make the sacrifice than run risks by placing them in competition with more juvenile and healthier specimens. We are of opinion, too, that mixed stove and greenhouse plants would be improved by excluding Azaleas, which look best grouped by themselves; and we are further of opinion that they should consist of a due proportion of both stove and greenhouse plants, or what would be better, perhaps, grouping each into separate classes. In Orchids, ornamental foliaged and variegated leaved plants, together with Ferns and Lycopods, the exhibition was pre-eminently grand. The great conservatory was devoted to these productions, having been

cleared out, and a stage erected on each side and at the farther end. The effect of these interesting groups was extremely good. Having taken some pains to bring the merits of fine foliaged plants before the public, it is gratifying to us to observe how extensive their cultivation is already become. In speaking of variegated plants, we must notice specially a collection of hardy variegated-leaved plants exhibited by Mr. Salter, because their culture is within the reach of everyone, and they are calculated to produce variety in the most ordinary gardens, as well as in those of larger pretensions. Of new plants, Mr. Veitch showed the rare and beautiful *Thujopsis dolabrata*, from Japan; cut specimens of a *Ceanothus*, near *papillosus*, called Lobbi; a new species of *Thibaudia*, extremely pretty; *Rhododendron Veitchi*, with large and singularly fringed flowers; and a very pretty *Pernettya*, covered with white globular blossoms.

Mr. Glendinning had the *Farfugium grande*, figured by us in February last, and which appears to increase in beauty the older it becomes; *Abies Kæmpferi*, the Golden Pine of the Chinese, and which will make a grand tree for our parks, &c.; *Aralia papyrifera*, the Chinese Rice-paper plant; and a plant in flower of *Statice macroptera*. We noticed besides a grand-looking *Melastoma*, from Mr. Linden, called *Cyanophyllum magnificum*. A group of *Rhododendrons*, by Mr. Standish and Mr. Noble, was very fine.

There were two tents devoted to *Pelargoniums* and other florists' flowers, and these were not sufficient to contain the large number of well-grown plants produced on this occasion. There was also a large number of Seedling *Pelargoniums*, variegated and scarlet Bedding *Geraniums*, new shrubby *Calceolarias*, &c., for which but very indifferent accommodation was provided. The principal exhibitors of new things in this class were Messrs. Beck, Turner, Kinghorn, Elphinstone, Lennox, Bragg, and Salter.

In collections there was not much new. *Azalea Sir C. Napier*, exhibited by Mr. Green, was very fine, which we had not previously seen. *Ivery's Gem* was also very good. The exhibitions were those we are accustomed to see on all great occasions, with the great addition of Mr. Rucker's *Orchids*. It was also the only time we have seen Mr. Lane's large *Azaleas* this season, but they appeared stale, and past their best.

Many of the plants were grouped in beds on the ground. This was novel, and had a pleasing effect, but it had the disadvantage of being seen only when there was no company in the tent, and did not please the exhibitors. A large number of prizes was awarded, which we shall give in detail in our next number.

Fruit, as we have already stated, was scarce but good. Messrs. Bray, Davies, Temple, Price, and others, had some good *Pines*; and of *Grapes* there were some remarkable bunches from Mr. Frost, Mr. Fleming, and Mr. Hill. The latter and Mr. Fleming had also some good *Peaches*. We also noticed one or two fair dishes of *Figs*, *Cherries*, and *Strawberries*.

The Vegetable show was a failure.

JULY.

To the real lover of Nature July will be found a very busy month. Let him direct his steps in what quarter he will some portion of Nature's productions will intrude themselves on his notice. To the Botanist July is the most prolific month of the whole year; and to the lover of flowers nothing is more delightful than a stroll down the lanes and hedge sides, where flowers of all hues will obtrude themselves upon his notice, some by their gaudy colours, and others by their sweet perfumes. The student will find this month most productive of all the Grass families, which offer a very wide field of observation and interest; the agricultural student will find it much to his advantage to make this branch of Botany his especial study. The Ferns and all Cryptogameous plants will also be found in perfection. Now the Ferns will present their fructifications in all their varied forms, opening very large scope for observation and admiration: and the important family of Leguminosæ will be found in their prime. The Heaths will be now tinging the moors and commons with their bright tints; the Foxgloves will also be conspicuous objects. Not only will all terrestrial plants be attractive now, but our ponds and lakes are especially so with their Water Lilies, Buckbean, Water Plantain, the beautiful Villarsia, or Water Violet; with the curious Bladder-wort, with its feathery leaves floating by their air bladders. The salt marshes will also be found rich with the marine aquatics, such as the Thrifts, the yellow horned Poppy, and members of the Cruciferous, Leguminous, and Syngeneceous Orders. The Entomologist will have plenty to do this month, as more insects are now on the wing than at any time of the year. This branch of natural history is a very attractive one, for in no part of Nature's work can we discover more delicate organisation or more exquisite beauty; and, like Botany, the study of Entomology is well adapted to those who, by their daily engagements, are unable to apply themselves to more severe studies; and to the enterprising young gardener this study will be found to prove of infinite service, as insects enter so largely and closely into all a gardener's operations; therefore, "to know an enemy and his tactics is half a victory over him." Many conceive the notion that to be a collector of insects would take up too much of their time, and that it requires expensive apparatus. Nothing is more fallacious. As to the time, it is the pleasantest recreation I know of, and of course to those who have their daily occupations in the open air nothing more is required than to keep on the alert; and as to the apparatus a gauze net about half a yard long, and about a foot in diameter at the mouth, like a fisherman's landing net, only lighter, and with a long handle, is sufficient; a few pins and a collecting box will be found sufficient to commence with, and a stroll by twilight by the hedge sides will give pleasant occupation to the beginner. For further instructions I should refer him to "Westwood's Introduction to Entomology," a perusal of which will initiate him in the *modus operandi*.

Our ornithological friends will find the heat of July has a great effect upon birds; they are now almost mute, and seldom seen excepting in

shady retreats where they can screen themselves from the burning sun. There is much to instruct and admire in those bright ornaments of Nature. The manner in which they propel themselves through the air is very interesting, and to the naturalist very important. Then, again, see the varied forms of their wings ; how graceful and beautiful ; every feather is brought into action. Again, look at the various constructions they provide for their young, "from the mighty eagle who rears her young on the mountain top, to the little swallow that constructs her claybuilt house in our window corners." How varied are the forms and materials ; and one cannot but be struck with the fact that our resident birds who brave with us the winter blast construct a much warmer nest for their young than do those summer visitants who quit our shores at the first approach of the autumnal storms. Take, for instance, the nest of our thorough-bred English bird—the common house sparrow ; its nest is a globular mass of hay and straw, so thickly lined with feathers that it is like an oven, and leads one to wonder that the young are not smothered in them. Then look at the nest of the black-cap, one of our tenderest visitors ; its nest consists merely of a few dried pieces of Grass, so slightly constructed that the eggs may plainly be seen through it. This is a mystery that man, with all his boasted acquirements, has not yet been able to solve.

T. W. A.

NEW FLORAL EXHIBITION AT EDINBURGH.

At last, Edinburgh seems likely to have horticultural exhibitions worthy of the northern metropolis, if we may judge from the reports that have reached us of the success that has attended the exhibition held on the 10th June, under the auspices of the management of the Royal Zoological Gardens at Broughton Park. Well done, auld Reekie ; for good prizes and liberal encouragement will be a mighty lever towards the advancement of horticulture in the north. We very much regret not having space to give a detailed report of the prizes awarded, but we are pleased to see the principal Edinburgh nurserymen rallying round the directors of the Zoological Gardens, and that many of the principal horticulturists in Scotland are lending their valuable aid in a good cause. Let it not be understood that in supporting this new effort we wish to underrate the Caledonian Horticultural Society. Far from it : and we wish it success, for there is room for both ; but we hail with satisfaction any effort grounded on just principles that may be set in motion for the advancement of horticulture. Nothing rouses men into becoming cultivators and exhibitors so much as a *good example* set before them, with the inducement of a fair recompence for their labour. Empty honours will not induce men to become exhibitors, and repay them for their labours, for in nine cases out of ten gardeners cannot afford to pay out of their own pockets the expenses that attend competition with a certainty of sustaining a loss, even though fortunate enough

to win what is too often called "a prize!" We shall watch with interest the progress of the exhibitions fixed for July 18, August 29, and September 12, when Dahlias and Hollyhocks will form an important feature of the exhibition.

CRYSTAL PALACE EXHIBITION.

SOME remarks as to the general effect of this Exhibition and condition of the grounds having been given in another page, we at once proceed here to particularise who were the successful exhibitors on the occasion.

20 Stove and Greenhouse Plants in flower: 1st, H. Colyer, Esq., Dartford; 2nd, Mr. Green, gardener to Sir E. Antrobus; 3rd, Mr. Page, gardener to W. Leaf, Esq.; 4th, Mr. Hamp; and an extra prize to Mr. Epps.

12 Stove and Greenhouse plants in flower: 1st, Mr. Dod, with some fine plants, including a superb pair of Azaleas, Gledstanesi, and Lateritia, a well-grown and flowered *Aphelaxis humilis rosea*, *Leschenaultia biloba major*, and a pretty *Leschenaultia formosa*; 2nd, Mr. Carson; 3rd, Mr. B. Peed; and 4th, Mr. Morris, gardener to Coles Child, Esq.

6 Stove and Greenhouse plants in flower: 1st, Mr. J. Peed; 2nd, Mr. Rhodes, gardener to J. Philpot, Esq.; 3rd, Mr. Cutbush, Nursery, Barnet; equal 4th, Mr. Frost, Preston Hall, and Mr. Kaile, gardener to the Earl of Lovelace; six extra prizes were also awarded in this class.

25 Stove and Greenhouse Plants grouped for effect: 1st, Messrs. Veitch & Son; 2nd, Mr. R. Parker, nurseryman, Hornsey, who had some fine things in his collection, particularly a superb plant of *Gleichenia*; 3rd, Mr. A. Bye, gardener to G. S. Wintle, Esq., Gloucester; 4th, Messrs. Jackson & Sons; 5th, Mr. Morris; 6th, Mr. George Young, gardener to W. Stowe, Esq., Dulwich; seventh, Mr. Epps.

20 Orchids of Exotic species (Amateurs): 1st, Mr. Gedney, gardener to Mrs. Ellis, Hoddesdon; 2nd, S. Woolley, gardener to H. B. Ker, Cheshunt. 20 Orchids of Exotic species (nurserymen): 1st, Messrs. J. Veitch & Son, Exotic Nursery, Chelsea; 2nd, Messrs. J. Jackson & Son, Nurserymen, Kingston; 3rd, Mr. Robert Parker, nurseryman, &c., Paradise Nursery, Holloway.

12 Orchids of Exotic species (Amateurs): 1st, Mr. S. M. Carson, gardener to W. F. G. Farmer, Esq., Nonsuch Park, Surrey; 2nd, Mr. Clarke, gardener to Charles Webb, Esq., High Grounds, Hoddesdon; 3rd, Mr. W. Keele, gardener to Dr. Butler, Woolwich, Kent; 4th, Mr. S. Morris, gardener to Coles Child, Esq., Bromley, Kent.

6 Orchids of Exotic species: 1st, Mr. G. S. Dods, gardener to Sir John Cathcart, Cooper's Hill, Chertsey; 2nd, Mr. R. Grix, gardener to the late A. Palmer, Esq., Cheam Park, Surrey; 3rd, Mr. John Green, Lower Cheam, Surrey.

12 Greenhouse Azaleas: 1st, John Green, gardener to Sir E. Antrobus, Lower Cheam, Surrey; 2nd, Mr. S. M. Carson, gardener to W. F. G. Farmer, Esq., Nonsuch Park, Surrey; 3rd, Messrs. J. & J. Fraser, nurserymen, &c., Lea Bridge Road. In Messrs.

Fraser's collection was a good plant of *Holfordi*; a very fine bright crimson variety; 4th, Mr. B. Peed, gardener to T. Tredwell, Esq., St. John's Lodge, Norwood; 5th, Mr. T. Gaines, nurseryman, &c., Surrey Lane, Battersea; 6th, Mr. J. Peed, gardener to C. T. Gabriel, Esq., Norfolk House, Streatham.

6. Greenhouse Azaleas (Amateurs): 1st, Mr. Page, gardener to W. Leaf, Esq., with rather small but well-flowered plants of *delicata*, *Iveryana*, *carminata*, *Murrayana*, *exquisita*, and *magnifica*; 2nd, Mr. Wm Taylor, gardener to J. Coster, Esq., Park Hill, Streatham; 3rd, Mr. J. Tegg, gardener to Baron Hambro, Roehampton, Surrey; 4th, Mr. Osman Rhodes, gardener to J. Philpott, Esq., Stamford Hill; 5th, Mr. George Young, gardener to W. Stone, Esq., Dulwich Hill.

12 Greenhouse Azaleas of new kinds: 1st, Mr. Greeu, among his plants *Sir C. Napier*, light orange scarlet, fine form; *Perryana*, *Sinensis*, and *Triumphans*, were fine; 2nd, equal, James Ivery & Son, nurserymen, Dorking, and Mr. W. Taylor, gardener to J. Coster, Esq., Streatham; 3rd, Mr. B. Peed, gardener to T. Tredwell, Esq., St. John's Lodge, Norwood; 4th, Mr. W. J. Epps, nurseryman, High-street, Maidstone.

Among the Azaleas shown in the various classes, we noticed as particularly good kinds from Mr. Ivery, *Trotteriana*, bright rosy purple; *Criterion*; *General Williams*, pale scarlet and good form; *Rosea superba*, a capital variety; *Gem*, fine form; *Feutorie*, brilliant scarlet and very fine; *Luana*, a good white; *Juliana* and *Crispiflora*. Messrs. Ivery also exhibited *Rosy Circle*, which, as exhibited, is not a first-class variety, *Queen of Perfection* (?), *Louis Napoleon*, a semi-double, loose, rosy purple flower; *Illustris Nova*, not worth growing; *Beauty of Europe*, nearly changed into *Exquisite*; *Eulalie*, novel, but hardly worth growing; and *Amœna*, a hardy variety, with a profusion of small, bright rose-coloured flowers. In Mr. Green's collection were *Stanleyana*, a superb variety of fine form, orange scarlet flowers; *Glory of Sunninghill*, in good condition, and the prettiest of all the double kinds; *Chelsoni*, very fine bright orange scarlet; and *Juliana*, very fine orange scarlet. Mr. Taylor had, different to those named, *Extrani*, *Perfecta elegans*, and *Feutorie*, all various shades of scarlet, but fine; *Magnifica*, a fine white; and *Barclayana*, a fine white, with faint pink stripes. Mr. Epps had *Symmetry*, a fine variety; *Eulalie* (*Van Geert*), and *Souvenir de l'Exposition*, a Continental variety of no great promise.

6 *Helichrysums*: Mr. W. Laybank, gardener to Thomas Maudsley, Esq., Norwood; 2nd, Mr. T. Page, gardener to William Leaf, Esq., Park Hill, Streatham; 3rd, Mr. W. Cutbush, nurseryman, &c., Barnet, Herts; 4th, Mr. John Green, gardener to Sir E. Antrobus, Bt., Lower Cheam; 5th, Mr. Osman Rhodes, gardener to J. Philpott, Esq., Stamford Hill.

10 *Cape Heaths*: 1st, Mr. B. Peed, gardener to T. Tredwell, Esq., Norwood; 2nd, Mr. Thomas Williams, gardener to Miss Traill, East Place, Kent; 3rd, Mr. Osman Rhodes, Gardener to J. Philpott, Esq., Stamford Hill; 4th, William Cutbush, nurseryman, Barnet, Herts; 5th, Mr. R. Glendinning, nurseryman, Chiswick, Middlesex.

6 Cape Heaths (Amateurs): 1st, Mr. George Young, gardener to W. Stone, Esq., Dulwich Hill; 2nd, Mr. William Taylor, gardener to J. Coster, Esq., Streatham; 3rd, Mr. J. Peed, gardener to C. T. Gabriel, Esq., Norfolk House, Streatham; 4th, Mr. James Harlock, gardener to R. W. Nutter, Esq., Wanstead, Essex.

6 Tall Cacti, species or varieties of, in flower, large plants: 1st, John Green, Gardener to Sir E. Antrobus, Lower Cheam, Surrey; 2nd, Robert Grix, ditto, ditto, Cheam Park, Surrey; 3rd, Mr. W. Mortimer, gardener to J. R. Scott, Esq., Crouch End, Hornsey.

12 Roses in pots, distinct kinds: 1st, Messrs. Paul & Son, who had fine plants of H. P. Auguste Mie, H. B. Coupe de Hebe, Tea Madame Willermoz, H. B. Paul Perras, H. P. Géant des Batailles, Tea Gloire de Dijon, H. P. Louise Odier, H. P. Jules Margottin, H. C. Blairii, H. B. Paul Ricaut, Tea Vicomtesse de Cazes, and H. C. Bella Maria; 2nd, Mr. Francis.

6 Roses in pots (Amateurs): 1st, Alexander Rowland, Esq., Rosenthal, Lewisham; Mr. Busby, gardener to John Crawley, Esq., Stockwood Park, Luton; 3rd, Mr. W. Mortimer, gardener to G. R. Scott, Esq., Crouch End, Hornsey.

12 Calceolarias: 1st, Messrs. Dobson & Son, for herbaceous kinds; equal 1st, Mr. Charles Turner, for shrubby kinds; 2nd, Mr. George Lambert, Oakwood, near Chichester; 3rd, Mr. Cole, St. Albans; equal 3rd, Mr. Pryer, Tulse Hill. With the exception of the collections that obtained the first and second prizes, Calceolarias were not exhibited in such fine condition as they should have been, and in two instances the growth was of very inferior character.

6 Fuchsias in pots: 1st, Mr. Reid, gardener to T. N. Farquhar, Esq., Sydenham, with very nicely grown plants; 2nd, Mr. Harper, Upper Tulse Hill, but the plants were tied in a stiff and formal manner, and had too many sticks; 3rd, Mr. Bousie, gardener to the Right Hon. H. Labouchere, M.P., Stoke; three extra prizes also were awarded. One collection, which did not get an award, was terribly disfigured with large stakes.

12 Pelargoniums, in 8-inch pots (Amateurs): 1st, Mr. William Nye, gardener to E. Foster, Esq., Manor, Berks; 2nd, Mr. John Wiggins, gardener to E. Beck, Esq., Isleworth; 3rd, Mr. Thomas Windsor, gardener to — Cannon, Esq., Hampstead; 4th, Mr. William Holder, gardener to the Rev. E. Coleridge, Eton College; 5th, Mr. James Weir, gardener to John Hodgson, Esq., The Elms, Hampstead. Mr. Nye's collection consisted of Saracen, Fair Ellen, Edith, Queen of May, Carlos, Sanspareil, Wonderful, Conqueror, Una, Lucy, Rosa, and Meteora, and were well grown and finely flowered plants. Mr. Wiggins's collection comprised Roseleaf, a useful bright sort; Fanny, Dido, Evelyn, Alexander, Wonderful, Emperor, a good variety; Gem of the West, Laura, a good variety; Fair Ellen, Sanspareil, and Euphemia.

12 Pelargoniums, in 8-inch pots (Nurserymen): 1st, Mr. Charles Turner, Royal Nursery, Slough; 2nd, Messrs. J. & J. Fraser, Lea Bridge Nurseries; 3rd, Messrs. John Dobson & Son, Woodlands Nursery, Isleworth; 4th, Mr. William Bragg, Star Nursery, Slough;

5th, Messrs. William Cutbush & Son, nurserymen, Highgate; 6th, Mr. Thos. Gaines, nurseryman, Surrey-lane, Battersea. Mr. Turner's plants were very fine, and consisted of Viola, Zeno, Rosamond, Lucy, Wonderful, Governor-General, Carlos, Snowflake, Conqueror, Admirable, Sanspareil, and Saracen. Messrs. Fraser had finer plants than we have ever seen them produce before, and consisted of Carlos, Portia, National, Lucy, Governor-General, Majestic, Rosamond, Rosa, Lablache, Sanspareil, Astrea, and Queen of May.

6 Fancy Pelargoniums (Amateurs): 1st, Mr. Archibald Bousie, gardener to the Right Hon. H. Labouchere; 2nd, Mr. Thos. Windsor, gardener to Charles Cannon, Esq., Hampstead; 3rd, Mr. George Lambert, Oakwood, Chichester, Sussex; 4th, Mr. James Weir, gardener to John Hodgson, Esq., The Elms, Hampstead; 5th, Mr. William Mockett, gardener to J. Allnutt, Esq., Clapham Common. Mr. Bousie's collection included a fine plant of Bridesmaid, a good light variety.

6 Fancy Pelargoniums (Nurserymen): 1st, Mr. Charles Turner, Royal Nursery, Slough; 2nd, Messrs. J. & J. Fraser, Lea Bridge Nursery; 3rd, Mr. William Bragg, Slough; 4th, (extra) Mr. Thomas Gaines; 5th, (extra) Messrs. John Dobson and Son. The kinds in the first collection were Cloth of Silver, Cassandra, Attraction, Richard Cobden, Omar Pacha, and Celestial.

Newly introduced or extremely rare Plants, remarkable for their beauty, in flower: 1st, Messrs. James Veitch & Son, Chelsea, Rhododendron Veitchi; 2nd, Messrs. J. Jackson & Son, Kingston, Surrey, Cyripedium sp. noya; 3rd, Messrs. James Veitch & Son, for Odontoglossum Reicheneri.

Newly introduced or extremely rare Plants, remarkable for their beauty, not in flower: 1st, Mr. R. Glendinning, Chiswick, Farfugium grande; 2nd, Messrs. James Veitch & Son, Exeter and Chelsea, Plectranthus, sp.; 3rd, ditto, Hippomane spinosa; 4th, W. Cutbush & Son, Solanum purpureum.

Hardy ornamental Plants, remarkable for their fine habit or beauty of foliage: 1st, Messrs. James Veitch & Son, Exeter and Chelsea, Wellingtonia gigantea; 2nd, ditto, Abies Kæmpferi; 3rd, ditto, Thuja gigantea; 4th, Messrs. John Halley & Son, nurserymen, Blackheath, Cephalotaxus Fortuni.

Seedling Pelargoniums were extensively shown; Mr. Beck having sent Signora (which received a third prize); Hesperus, a bright variety; Rosalie, a Governor-General flower; Mars, a painted bright scarlet flower; The Bride (which received a first prize); Annie, and Eva—the three last being white varieties. Mr. Turner sent Rose Celestial; Mr. Marnock, a good spotted kind; Etna, intense scarlet lower petals with very small spot; Rosy Gem, and Cherry Ripe. Mr. Hoyle sent Persian and Richard Benyon, a scarlet variety. Mr. Foster contributed Blink Bonnie and Florence. The best of these will be more fully described another time. Some fine Seedling Fancy Pelargoniums were sent by Mr. Turner, including Acme, a greatly improved Evening Star (which received a second prize), and Rosabella, a greatly improved Jenny Lind, and a fine exhibition variety. Messrs. Cutbush & Son exhibited the early forcing Geranium Blancheffleur. Mr. Turner sent

Petunia Attraction, a fine variety in the style of British Queen; Calceolaria Gem, and Calceolaria Aurea floribunda, an invaluable bedding variety, producing an exhaustless supply of yellow flowers. Mr. Francis, of Hertford, contributed small plants of Roses on Manetti stocks, to show what pretty plants can be bloomed in small pots, and so soon after being grafted; they included H.P. Madame Knorr, a fine pale rose-coloured variety. Miscellaneous subjects were plentiful. Mr. Glendinning sent Gesnera Donkelaari, the handsome Chinese Larch, and a noble specimen of Farfugium grande, which we figured in the February number. Messrs. Veitch & Son had in their collection of Ferns a good plant of Drynaria species, a beautiful Fern. The same firm also sent Rhododendron Brookianum, with willow-like leaves and a loose truss of pale yellow flowers; the beautiful R. Veitchi; Embotrium coccineum, a handsome hardy shrub, with a profusion of scarlet flowers; Meyenia erecta; Rhododendron Princess Royal and jasminiflorum; Ixora acuminata; and a handsome species of Pernettya, loaded with white flowers. Mr. Cutbush sent Genetyllis Hookeriana, and Eucharis amazonica, a beautiful white-flowered greenhouse plant.

The show of Fruit at this exhibition in a measure disappointed us. Undoubtedly some of the articles exhibited were very first-rate, but the greater part were not so; a quantity was decidedly inferior. Only one or two dishes of the white Grapes in letter H. were ripe. In letter I. (Muscats), not one dish could the judges pick out for a prize. This is the more to be regretted because some of them were very fine productions, and another month's growth would have made them perfect; and among the black Grapes many were unfit for exhibiting. The fruit of highest merit in the exhibition, according to our judgment, were the Hamburgh Grapes of Mr. Frost, of Preston Hall; Mr. Fleming's Grapes (Hamburgh); three dishes of Cherries—the Elton, Circassian, and May Duke; and the British Queen Strawberries of Mr. Smith, of Twickenham, which were well swelled and beautifully ripened. Mr. Constantine had some very fine Royal George Peaches, and Mr. Busby excellent Elruge Nectarines. Mr. Dods exhibited fine Hamburgh Grapes; as did also Mr. Henderson Grizzly Frontignan; and a basket of good Strawberries was sent by Mr. Watson, market-gardener, Ealing. Besides Mr. Fleming's Cherries, very good fruit was sent by Mr. Shuter, from Heaton Park. Pines, of which a number was shown, were generally neither handsome nor large; a medium-sized Queen, well swelled, sent by Mr. Bailey, of Shardeloes, was awarded a first prize, and we observed a well swelled Jamaica from Mr. John Davis. Melons looked well, but the judges did not appear to like many of them; our old favourite, the Bromham Hall, shown by Mr. Kaile, was the best; and a high-flavoured one was exhibited by Mr. Fleming.

NATIONAL FLORICULTURAL SOCIETY.

JUNE 11.—The Rev. Joshua Dix in the chair. There was a very interesting lot of seedling Pelargoniums exhibited on this occasion. E. Foster, Esq., Clewer Manor, received a first class certificate for

Minnie, a stout flower with dark top, and bright crimson lower petals, the top petals having a narrow fiery scarlet margin. E. Beck, Esq., Isleworth, received the same award for The Bride, a very pretty medium sized clear white flower, of good quality and form, and very free. Mr. Charles Turner, Slough, received certificates for Etna, a very bright free flowering variety; Rosy Gem, very lively rose, and a large well-formed flower; and Imperatrice, a bold good shaped kind, with a Carlos flower, but larger and more distinct in its marking. Richard Benyon (Hoyle), Mars (Beck), Blink Bonny (Foster), Sprightliness (Foster), Mazeppa (Turner), and Rose Celestial (Turner), are flowers possessing a considerable amount of merit. A new variegated Geranium, with bright scarlet flowers, named Perfection, received a first class certificate. This variety is a decided advance on other kinds. Several fancy Pelargoniums were exhibited, and were very good, and among them were Acme and Mrs. Turner, both of which received first class certificates, and are great improvements on existing varieties. The former is maroon with white centre and margin, and of fine form; the latter is a bright carmine rose, with clear white centre and white margin, and both varieties appeared to be good growers. Crimson Pet, Princess Royal, and Gipsy Bride were also good, and were sent by Mr. Turner. Messrs. Downie and Laird, Edinburgh, received a certificate for a yellow ground Pansy named Mrs. Hope, a smooth rich flower, with very clear gold ground, and dark top and margin. The same firm also exhibited a stand of finely grown named varieties, the best of which were Countess of Roslin, Duchess of Wellington, Princess, Una, Nonpareil, Alliance, Lord Cardigan, Cyrus, Colonel Wyndham, William, Beauty, Matchless, Yellow Model, Lady Matheson, and Jeannie. Mr. Sadler, of Wednesfield, sent a bloom of General Vernon Pansy, a very good dark self variety; and Mr. Cole, of St. Albans, received a label of commendation for a pretty dwarf Heliotrope named Compactum, of good habit, but nothing new in colour. Messrs. Cutbush and Son sent the new Bhotan Rhododendron Jenkinsi, a large white variety of loose habit.

JUNE 25.—The Rev. J. Dix in the chair. Mr. Parsons, Welwyn, exhibited a very bright carmine Achimenes, named Meteor, of good size, form, and substance, to which a first-class certificate was awarded. Mr. Parker, gardener to Dr. Maclean, Colchester, sent some seedling Pinks, among which Miss Eaton, a beautiful purple-edged flower, of fine form and excellent petal, received a first-class certificate; Eugenie, a light purple edge, with good petal, which received a certificate; the Pride of Colchester, heavy purple edge; Miss Nightingale, a fine variety that received a first-class certificate last year; Napoleon, a superb heavy purple-edged flower, with fine petal, of which only a single flower was sent, and could not, therefore, receive an award; and Slough Buck, a useful flower. Mr. Bragg, Slough, sent Crystal Palace, (which received a certificate), and Blink Bonny, both light purple-edged varieties, and Norah, a heavy purple. Mr. D. W. Cunningham, Craven Cottage, Fulham, sent a box of cut blooms, of a bright rose-coloured variety of Phlox Drummondii, called Oculata rosea, a very useful variety for bedding purposes. Mr. George Smith, Islington, sent

Verbena Carlos (to which a certificate was awarded), white with a pale carmine eye; Shrubby Calceolaria Pet, a dwarf light crimson brown variety; and a plant of Petunia Exquisite, the best white variety out. Mr. Wyness, Buckingham Palace Gardens, exhibited a seedling Verbena, Lord Alfred Paget, rosy purple, with dark centre, but not a desirable variety. Mr. Charles Turner sent several seedling Pelargoniums, including Duke of Cambridge and Mazeppa, a fine spotted variety, which received a certificate; also seedling Fancy Pelargoniums Clara Novello, Claudiana, Decision, Alice (which received a certificate), and Queen of Lilacs, a pretty delicate rosy lilac, with white centre, which received a certificate. A variety named Rosabella is a greatly improved Jenny Lind, and will make a fine exhibition variety. Mr. Turner also sent a variegated Geranium, Julia; and Messrs Hooper & Co. sent specimens of the crystal Rose label, composed of glass, in which is placed a printed piece of paper showing the name, and a specimen of a new stake and shield for Carnations.

MESSRS. JOHN WATERER'S AMERICAN PLANTS, ROYAL-BOTANIC GARDENS, REGENT'S PARK.

USUALLY this attractive exhibition has been contributed by several exhibitors, but on this occasion the plants were wholly supplied by Messrs. John Waterer, of Bagshot. The large tent, comprising some thousands of finely-grown plants, was most admirably arranged, the different shades of colour being so contrasted as to give the most pleasing effect. Those who have had the good fortune to have a "peep" at Messrs. Waterer's "show" when at its best, will agree with us that it was a grand display. Subjoined is a list of a few of the leading kinds, compiled from notes made on the occasion.

RHODODENDRONS.—Velasquez, beautiful cherry colour; Aclandianum, delicate blush, and much marked with chocolate spots; Archimedes, bright crimson; Nireus, light purple, and much marked with dark spots; John Waterer, glowing carmine, first-rate; Mrs. John Waterer, clear bright rose, and spotted, very fine foliage, first-rate; Lady Eleanor Cathcart, bright clear rosy crimson with chocolate spots, distinct, first-rate; Omphale, bright scarlet, rose and orange spots; Nero, large dark purple, good; Madame Van de Weyer, light rosy crimson, good; Jubar, rose, and much spotted; Sir Charles Napier, rose, and distinctly spotted; Sir Colin Campbell, rosy purple and intensely spotted; Roseum pictum, light rose, paler centre, good; Rhodoleucops, rosy crimson, and white eye; Sebastian, an extraordinary spotted kind, good; Concessum, light rosy crimson, centre much paler, good foliage; Attraction, fine crimson, a very large truss; Celebrandum, crimson claret, compact trusser; Congestum roseum, a bright rosy crimson, and much marked; Enchantress, delicate clear white, with orange eye, good; General Canrobert, brilliant crimson, strongly marked, first-rate; Lefevreanum, crimson, and good form, first-class; Duc de Brabant, salmon white, good; Pasithea, a distinct and good kind; Lady Wenlock, fine rosy crimson; Vandyck, clear rosy crimson, first-class; and several seedlings which are very distinct and beautiful, but not named.

CALENDAR FOR THE MONTH.

Azaleas.—Towards the end of the month those done growing may be placed out in a dry, airy place. Let plants not finished growing have plenty of air and light. Watch well for the appearance of thrips; fumigate immediately you perceive any.

Camellias.—When the bloom buds are formed, these may be set out of doors. As this is a proper time for shifting, any that require it should be fresh potted. In general they will not require any heavy watering at this time, but when the weather is hot and sunshiny they should be well syringed every afternoon.

Carnations and Picotees.—Careful watering must be observed; it will prolong the bloom. Protect the flowers from wet and hot sun. It promises to be an early as well as a good bloom this season. Pippings should be put in at once if this mode of increasing the stock is adopted; if not done thus early, layering will be a better plan.

Conservatory and Show-house.—In order to give the permanent inmates of these every chance to complete and ripen their wood, no more plants should at present be placed in them than is necessary to make a nice display. A few good specimen plants in flower, arranged with taste, will be sufficient to render them interesting. Clerodendrons, Achimenes, and numbers of other things may now be removed to the conservatory. Water well all the plants in the borders, and syringe those not in flower. Ventilate freely.

Cucumbers.—Syringe freely in the afternoon, and sprinkle well with water the beds and pathways, then shut up soon; this will be a check against insects. Unless well guarded against, red spider soon becomes troublesome at this season. Thin well out all old growths, and encourage young shoots. Look well after young plants that are to succeed those in bearing at present. This is the best time to sow for winter bearing. Most people have their favourite sorts, but for this purpose Lord Kenyon's Favourite is invaluable.

Dahlias.—Watering, mulching, and keeping down insects will all help to make these grow luxuriantly. The first and great point-towards success is to grow a fine plant, after which the skill and judgment in thinning must be brought to bear; and nothing but close observation will accomplish this, as scarcely two varieties require precisely the same treatment.

Flower Garden.—Pay unceasing attention to tying and pegging down of the plants until they cover the ground, and then pay equal attention to keep them from becoming crowded or irregular. Ribbon borders require great attention to get them to one's mind. All plants that require stakes should have them put to them in time. Roll the walks frequently, and maintain the highest possible state of keeping.

Fruit (hardy).—Continue to lay in the shoots of Peach and Nectarine trees, but be careful that the foliage is exposed to the full influence of the sun and air. If the weather is very dry water trees not fully established. Pinch off all shoots not wanted on Apricot trees; with the exception of caterpillars, these do not suffer much from any other insect.

Greenhouse (hard-wooded).—Plants out of doors must be well

attended to, that they may not suffer either from want of water in dry weather or from an excess in wet weather. Anything that requires shifting should be fresh potted at once. Many of the young stock in pits will require shifting; when potted tie them neatly out; give them plenty of air, but guard against a very dry atmosphere. Keep a sharp look-out for insects, and the moment any are perceived apply the proper remedies to get rid of them. *Soft-wooded Plants*.—These will now merely require attention in tying up of the shoots, flower-stems, &c., watering, and plenty of air. Let the plants have plenty of room. Examine them often for insects, which if allowed to get ahead soon spoil the beauty of a good specimen.

Kitchen Garden.—If the main crops of autumn and winter Broccolis have not yet been got out, not a day should be lost in doing so; every advantage should be taken of showery weather for doing so, but if the weather is dry the plants must be well watered. The principal breadth of Celery should be got out without delay. Plant Leeks. Plant Lettuces for successional crop. Plant at the beginning and at the end of the month good breadths of Walcheren Broccoli; they will come in for use during the autumn months up to Christmas. Plant out a good breadth of Endive for early use. Mulch and water freely late crops of Peas, if you wish to have them of superior quality. Sow Cabbages for autumn and spring use. Sow Lettuces and Radishes for succession. Sow a good breadth of Turnips. Sow Endive.

Orchard-house.—Ply the syringe freely mornings and afternoons. Stop the shoots and remove all superfluous ones. Water freely and give air abundantly.

Peach-forcing.—Towards the end of the month remove the lights off the early house; the wood, by being fully exposed to the action of the air, will become hard and firm. For late house, see previous directions.

Pelargoniums.—The time is at hand for a general cutting down; fumigate before this is done, aphides being more difficult to destroy afterwards. Sow seed as soon as ripe.

Pinery.—Those intended to “start” in the autumn should be placed in the pots they are intended to fruit in without any delay. The general stock of young plants will now require shifting. They should be all kept a little close for a few days after potting, but as soon as they begin to make fresh roots they should have all the light and air possible; they will also require to be liberally supplied with water: by this means they will grow to be strong, robust plants.

Pinks and Pansies.—Propagate these by the usual method of pipings. The latter will require a shady border, but Pinks do best on a slight hotbed.

Pleasure Ground.—There is nothing requiring particular attention here at present more than mere matters of routine, such as mowing, rolling, and sweeping, and these must be constantly attended to, to keep up nice order.

Stove.—Give abundance of air, and keep the atmosphere in as growing a state as possible by frequently syringing all quick-growing plants, and well sprinkling with water the paths, &c. Pay proper attention now to winter flowering plants. Keep down insects.





1

2

1. Princess Royal
2. Acme

FANCY PELARGONIUMS.

(PLATE 129.)

AMONG the catalogue of florists' flowers, there is none in the cultivation of which so great a stride has been made during the last few years as is witnessed in Fancy Pelargoniums. When we remember the flowers of this class of Pelargonium, as they appeared a few years since, with their narrow petals resembling the sails of a windmill—so deficient were they in form—and compare them with the beautiful symmetry of the flowers in the present day, we shall then see what the florist has accomplished in this pleasing tribe of plants—a class which has now become universal favourites, and justly so, as they present every hue of colour, and with a succession of plants may be made to furnish an attractive display of flower all the year round. Time was when they were a weak and sickly race, requiring more than ordinary care in their management; but now, thanks to the enterprising exertions of the hybridiser, we have robust, free-flowering habits conjointly with finely-formed flowers, which will bear the same treatment as the larger varieties. The Fancy Pelargonium may in fact be called a perpetual-flowering plant. If the trusses are taken off immediately the flowers have withered, and the plant be repotted, it will come into flower again in the course of a few weeks, and continue to bloom the whole of the winter, the assistance of a slight artificial heat being necessary at this season.

A little exertion in this way will amply repay the trouble taken and the care bestowed, for there is scarcely a plant that will make so good a display for the greenhouse or conservatory. However, to grow the plants well, some good management is requisite. In the first place, it is essential strong and healthy cuttings be selected, which, when cut into lengths, say from two to three inches long, should be inserted round the edges of well-drained pots filled with a light compost, having at least one-third silver sand incorporated with it. As soon as the cuttings are rooted, pot them off into small pots, employing a sweet fibrous loam with an admixture of rotten manure and sand, taking care to well drain the pots, as in the case of the cuttings. As soon as the growth which will be developed attains the length of three inches, pinch out the centre of the shoot or shoots, when they will be found to break right to the bottom of the plant, taking care to keep them rather dry while undergoing this process. As soon as the strength of the plants admits of it, tie out the side shoots, and shift the plants into larger pots as soon as they reach the outside of those in which they are growing. Pots from six to eight inches diameter are

large enough for the final potting, but the size employed must be in accordance with the purpose for which the plants may be required. Eight-inch pots—*i. e.*, eight inches in diameter—is the size the plants are generally exhibited in. Among novelties in the way of Pelargoniums may be mentioned the French varieties, which have been introduced within the last year or two, and which, though somewhat long in their petals and irregularly formed, present a very gay appearance, being in many instances quite dissimilar to the English varieties. All are more or less spotted or painted, some having quite a grotesque appearance. One great point in their favour is, that they are very free bloomers, and well adapted for furnishing or decorative purposes.

If our readers will refer to vol. vi., for 1853, page 217, they will there see coloured representations of the finest varieties of Fancy Pelargoniums we then possessed, and by comparing them with our present plate by the same artist (Mr. J. Andrews), it will give some idea of the great advance that has been made in their cultivation during the space of four years. The varieties figured in 1853 were raised by Mr. Ambrose, of Battersea, and Mr. Henderson, St. John's Wood. Those now figured were raised by Mr. C. Turner, of Slough, and have been very generally exhibited during this their trial season. Acme and Mrs. Turner have never been shown without receiving the highest award that is given for such productions, including the National Floricultural Society, the Royal Botanic and Horticultural Societies, Crystal Palace exhibition, &c. We can from experience strongly recommend this class of plants to our readers, as being certain of giving a good return for the time and trouble expended on them. In their culture one very important point is often neglected, namely, cleanliness. There must not be either damp, mildew, or aphides suffered to accumulate, all of which can be easily kept under by timely precaution. Damp will bring mildew, and want of cleanliness engender green-fly. There is no mystery whatever in producing the gorgeous large specimens of fancy Pelargoniums we annually see at the exhibitions; attendance to a few easily-accomplished rules is all that is required—such instructions as are given in our monthly calendar.

We subjoin a list of good old kinds:—

Attraction (Turner), rose	King (Turner), crimson
Beauty of Slough (Turner), light crimson	Omar Pacha, crimson
Bridesmaid (Turner), blush lilac	Purpureum album, dark purple and white
Cloth of Silver, white	Queen of Roses, rose
Crimson King, crimson purple	Madame Rougiere, purple
Celestial, lilac	Mrs. Colman, dark
Cassandra, light crimson and white	Madame Sontag, light
	Emperor (Turner), dark

French varieties, twelve of the best.

Chauvieri
 Feu Incomparable
 Eugenie Duval
 Gloire de Bellevue
 Napoleon the Third
 Piscatoric

Ernest Duval
 Guillaume Severyns
 James Odier
 Madame Furtado
 „ Piscatoric
 Roi des Feu

FROM WHAT CAUSES DO THE UNHEALTHINESS OF MANY OF OUR FRUIT TREES PROCEED?

AS certain writers have been propounding views upon the subject of the deterioration of races of plants (and which views exactly coincide with a line of argument propounded in Carpenter's "Physiology of the Human Frame" upon the deterioration of the human race), I make no apology in bringing this article before your readers. I will, therefore, endeavour to show the advance, and the causes of that advance, of our fruits since the Creation, which, as you state at page 176, were found to be "very good," and which, under the eastern and tropical sun they undoubtedly were, as Nature has there been very lavish with her Figs, Bread-fruit, Guava, Banana, Plantain, &c. Therefore, it is not to the tropics that we must look for advancement, but to climes where, further removed from the equator, the skill of man's cultivation is requisite to counteract the stern seasons of ice and snow, and whose natural fruits consist of sour and bitter crabs, the thorny and hard-wooded Pear, the wild Plum and Cherry, each and all of which in their wild state are very distinct in their species, and their seeds produce the exact counterpart of their parents, and will always continue to do so, so long as they remain in their natural state only. But let us take one of these distinct and original species and plant it into our gardens in highly cultivated soil, we shall find that it will be stimulated into a more luxurious habit of growth; its fruit will also be larger, but we shall still find the same colour and flavour there as in its native wilds. But by saving the seeds from this fruit, and sowing them in richly cultivated soil we shall find the young plants produced therefrom having a tendency to vary from the original, both in form of growth and general appearance, as well as in fruits, many of which will be found to be superior to their parents both in colour and flavour; and, as the young plants will be likely to vary from each other, consequently they will each one constitute a new variety, and as often as this reproduction is repeated so often do the number of varieties increase. Having thus become possessed of a variety which has moved out of its original form, we have the means of indefinitely extending these varieties; for, having broken the original habit of the species, it has always after a tendency to depart from its primitive state, but nevertheless the greater portion of its seedlings will still retain a type of its parent, but here and there will be found one that has varied or broken quite away from all likeness of its original; consequently, in this plant is founded the hopes of the cultivator.

It has, however, been found that seed saved and sown from an old and decaying tree will infallibly produce plants which approach much nearer to its original or wild state than those seeds from a young and vigorous tree; therefore, knowing this natural inclination of old trees to retrograde, Dr. Van Mons (one of the most successful raisers of our best sorts of Pears) adopted the opposite principle of saving his seeds from young and vigorous seedling trees without paying much regard to its quality as long as it varied. His practice was thus: his seeds were sown in beds, where the plants remained till he could judge of their characters; he then selected those he thought most promising and planted them out, patiently awaiting the result. Nothing daunted at finding most of them inferior in quality, though differing from their parents, he saves and sows again; this generation fruits earlier than the last, and shows a larger quantity, of improved character; he again immediately gathers, and, sowing the seeds of this generation, produces a third, then a fourth, and even a fifth, generation direct from the original sort, each generation coming more quickly into bearing than its immediate predecessor; the fifth sowing of Pears produced fruit at three years, and furnished a greater number of varieties. He found the Pear to require the longest time of all fruits to attain perfection; the Apple requires but four generations, while the Peach, Cherry, Plum, and other stone fruits needed but three generations to bring them to perfection, while the Pear required five reproductions from seed to attain its greatest excellence. It was also a leading feature of this celebrated raiser to subdue or enfeeble the coarse luxuriance of the tree, to produce which Dr. Van Mons always *gathered his fruit before they were ripe*, and allowed them to rot before planting the seed. Such was his practice, which is sufficient to show that our best varieties of fruits are not natural forms but the artificial productions of culture, which has enfeebled the natural vigour and reduced the exuberance of the tree, but its counter action has refined and increased the flesh or pulp of the fruit, and in most instances reduced the size of the seeds. Now, this being the case, nothing can be more convincing than that this course of reproduction has introduced a very debilitated race of fruits into cultivation.

It is a well known fact that all our hardiest and most vigorous varieties have sprung up in an accidental manner, as if nature made the effort to produce an advance out of the materials artificial culture afforded her; while, on the other hand, the most debilitated are those produced after the Van Mons system, and consequently are impaired in health in their very origin, and upon which those theorists centre their points as examples of the deterioration of races.

Another very frequent source of unhealthiness proceeds from the want of care in the propagation of fruits. For instance, the Pear is often worked upon the Quince and Thorn; I have even known it to be worked upon the Mountain Ash, consequently the durability of the life of the tree is reduced quite two-thirds of its natural limits. Grafts and cuttings being also taken from these trees naturally inherit the enfeebled condition of their parents, and, like them, soon suffer from the unnatural stock; whereas, if care is taken to work any variety upon a healthy

stock of close affinity to itself it will last almost as long as upon its own roots.

Climate and soil have also a very great influence upon the healthiness of a tree. Many of our best Apples and Pears have originated in countries much warmer than ours, consequently, when introduced into the climate of England, they are constitutionally unfit to bear its vicissitudes. The same may be said in regard to those which originate in northern climes, and are transferred to warmer ones. These also are causes we are told which produce deterioration.

PYRUS.

ON IRRIGATION.

ENGLAND has the character of having a wet climate, especially by our neighbours on the Continent: but notwithstanding the quantity of rain which falls, and which is usually ample for general purposes, the culture of many garden crops will be much improved by having recourse to artificial modes of supplying plants with water.

To grow such vegetables as Cauliflowers, Lettuce, Spinach, Rhubarb, Celery, Globe Artichokes, Radishes, and Peas, during the heat of summer, on dry soils, in great perfection, is almost an impossibility—try how you will. It is well known that the quality of these productions—their size, crispness, or succulency—all depend on their growing quickly, facilitated by an abundant supply of water; and knowing the expense of manual labour for watering, I made an attempt, two years back, to supply water to my grounds from a reservoir or pond, which I had at a sufficient elevation for my purpose. I may add that my soil is of a sandy, light nature, resting on gravel. I found I could not well arrange the details from the pond *direct*, so I made a second reservoir by placing an old double butt in a position that commanded part of the crops which I wished to irrigate, and when these were done I moved it to another point. To this butt the water was conveyed from the pond by gutta percha tubing, which supplied itself by a ball-cock; a tap was inserted at the bottom of the butt, to which additional tubing was screwed, and carried to the different crops, stopping at the highest part of the land, from whence it was allowed to flow down as far as it would, when it was shifted, so as to spread the water as evenly as possible over the roots. As time was an object I made no difference, applying it even during hot sunshine, and giving them a thorough soaking twice a week while the crops were growing. The expense of tubing was not much more than water-pots would have cost me. The extraordinary luxuriance of my crops subject to this system is the admiration of every one; Lettuces and Radishes which formerly were scarcely eatable, are now tender and crisp during weather hot and dry as it has been of late, and almost grow too large. There is a great advantage in irrigating Peas, which on my soil, after June, were of small account, as the haulm turned yellow quickly, and after a few gatherings they were done. Last year (a wet one) I subjected a

plot of the British Queen and Ne Plus Ultra Peas to irrigation, allowing the water to flow down the rows in which they were sown. The water was applied when the Peas came into blossom, early in July, and continued through July and part of August. I was astonished to find the season prolonged far beyond the usual period of bearing, and the crop was certainly three times as great as I ever had before; the Peas continued growing and bearing in succession, and I calculate produced me fully as much from this piece of ground as twice its size under my old system, with produce of better quality. I need not allude to Celery, which is more generally well watered than most garden crops; but I found Globe Artichokes thrive prodigiously, and quite overdid us with their heads, which were much more succulent than I ever saw them elsewhere. My success was not so great with Onions, which grew very large—double their usual size—but did not ripen well, owing to the wet autumn, and I have doubts whether irrigation does not do them more harm than good in our climate. This year I have applied it to Strawberries and Raspberries with the best results, having had immense crops of these useful fruits.

Thinking this simple piece of information may prove serviceable to some who, like myself, are fond of good vegetables, I enclose it for your periodical, if you think it worthy a place.

J. M. S.

[We are obliged by the results of our correspondent's experiments with irrigation. Having ourselves witnessed, year by year, the value of irrigation to growing crops such as our correspondent describes, we are only surprised it is not more generally practised on light soils—and even occasionally on those of a heavier nature, as we frequently find crops suffer as much on close compact soils from drought, as on lighter ones. We hope, as the expense would not be great, and elastic tubing is now to be procured at a cheap rate, that contrivances for watering gardens by these means will be universally practised, and thus save the tedious and imperfect way of watering by means of the watering-pot. Its successful application to root crops, as farm produce, has been demonstrated by that best of all experimentisers, Mr. Mechi, at Tiptree Hall.—ED. *Florist*, &c.]

THE CHRONICLES OF A SMALL GARDEN.

I ONCE said to the foreman of a nurseryman whose grounds were situated in a part of the country well filled with gentlemen's seats, "I dare say you have a good demand here for these new and high-priced things?" "Oh, bless you, sir," was the reply, "they are not the customers we want. It's the gents that have small gardens that we like best, who like to go up to town with a new Rose or Geranium in their button-hole, and when they get to the Stock Exchange or the Bank can say to their friends, 'Can you beat *that*?' They *will* have all the good things, sir; aye, and grow them, too, sir." May not this be my apology for attempting to obtrude into the aristocratic pages of the *Florist* the chronicles of a small garden? What business have I among

men who have as many acres to take care of as I have square yards? What sort of company am I for Mr. Ingram, or Mr. Fleming, or Mr. Rivers? I go back to my informant's answer—"The owners of those small gardens *will* have the best;" they are good friends to horticulture, and liberal supporters of all connected with it. However, I want to get a step lower still; I not only desire to speak of small gardens, but those gardens in the hands of persons of small means, whose time is much occupied, and who possibly have many little plants in-doors, that require nearly all the odd shillings they have to spare; who, if they do not require matting and tiffany, and frames, do want boots and shoes, longcloth, and broadcloth: such, I know, is my position; and as a very small gardener, I want to show my fellow smalls, how I can manage, with small expense, to have very agreeable recreation and be up to the mark in most flowers. I can take you into that garden—my friend, now; and small though it be, I can cut you a bouquet that some of your aristocratic neighbours might envy: and if you be a florist, I can ask you what you think of this or that Rose, or this Pink, or that Carnation; or I can chat with you about my Auriculas or Pansies—can show you my Japan Lilies coming into bloom, and my new Chrysanthemums; and pushing on their way, can ask you what you think of that Crystal Palace bed of Flower of the Day and Variegated Alyssum—or whether you like that little bed of Phlox Radetzsky; and my being able to do this, will—without too much flattery, I hope—be sufficient for me to be your chronicler. And let me add that for well nigh twenty years, I have been a florist, I can remember the days when Garth and Foster first astonished the world with Joan of Arc and Sylph Geraniums, and well remember one day seeing at Catleugh's a lady of rank ordering two plants of the latter for ten guineas. Much of my experience, too, has been that of gardening under difficulties; so much so, that my friends often have said, "Well you will have a garden anywhere." Once or twice I have been more favourably situated; but I question very much whether my enjoyment of my garden was as great then as when I was more straitened, and now that I am removed from all exhibitions, I think my interest in flowers is of a more legitimate character than when I used to be carrying off prizes at a metropolitan show. So here again experience will, perhaps, qualify me for being the chronicler of small gardeners.

As one has now principally to admire, and with the exception of layering Carnations and Picotees, there is but little now to occupy me, I will give a description of what I have to work on and with: and then, as each month requires its record, will tell, not what ought to be done, but what I am doing. I dare say much will be quite wrong in the judgment of many. I do not want to teach, only to chronicle, and hope, by presuming to do this, I may bring down on me some great gun to teach me and my brothers in the art.

As a clergyman with a parish of 3,000 people, it will be seen that I have not much time to devote to a garden, and that time has to be measured out in very exact dozes. I look upon my garden as my recreation, and therefore give to it one hour every morning, and the

whole forenoon of Monday, for *my* Sabbath is not a day of *rest*. An old pensioner, who lives close by, is glad for a very trifle to come over daily, and keep the ground clear of weeds, &c. ; and I get the services of a gardener for two hours every week to do any nice jobs, such as budding, planting out, &c., which I feel he can better manage than I can. Of course, had I leisure—say three hours a day—these could be dispensed with. The size of the garden (start not at its magnitude) is 45 by 54 feet. I am very particular in naming this, as I have before my eyes the very ludicrous figure a friend of mine made to a London nurseryman once. He had been in the habit of ordering every season some two dozen of new Chrysanthemums—which two or three of us used to divide—and I suppose writing rather largely about his garden, the said nurseryman took it into his head to pay him a visit. Mr. S. was announced. “I have come, sir, to ask you to allow me and my wife to look at your garden.”—“My garden! Oh! it is so small I really have hardly anything in it,” said my friend, with his face as red as *Géant des Batailles*.”—“Oh, never mind that,” said Mr. S., with all the blandness possible, thinking, no doubt, it was modesty; and there he stood, hat in hand, earnestly entreating to see it, my friend as earnestly endeavouring to keep him out; but at length he was conquered, and Mr. S. was admitted. He was too polite to say all he thought, when he found the diminutive size of my friend’s garden and the scanty nature of his collection; but it was a warning I have not ceased to have before my eyes when talking with floricultural friends. Thus, your friend and correspondent, whose racy notes on Auriculas graced your July number, is coming to see me in a few days, and I have taken good care to tell him, that though I can talk with him about Auriculas, my collection is confined to some three or four dozen plants. The garden was five years ago part of a wheat field; is very much exposed to westerly winds; the soil, naturally good, has been well provided for with manure, and is now in tolerable condition. I have a piece of kitchen garden adjoining, in which I can put two or three frames; and in the flower garden I have a small greenhouse, 16 by 8 feet. My garden now contains about 150 Roses, three beds of Verbenas, a long border of Tom Thumbs, edged with *Lobelia ramosa* (to be discarded next year for *speciosa*), a bed of Heliotropes, one of Phlox Radetzki, one of Calceolarias, one of Flower of the Day and variegated Alyssum, one of Pinks, which will be taken up and late Verbenas put instead in a few days; besides three beds of miscellaneous plants, about thirty pots of Carnations and Picotees, and some Japan Lilies.

Well, August is coming, and how shall I be employed?

Pansies. Strike cuttings of these for growing in pots (the only satisfactory way to grow them).

Auriculas. Repot these early in the month in good wholesome stuff, with but little manure, and that *very* old.

Carnations and Picotees. Layer.

Pelargoniums. Repot, as soon as the shoots have pushed an inch long.

Scarlet Geraniums and bedding plants for next year. Put in plenty of these in a north border; do not be afraid of having too many.

One may not want all oneself, but friends are always too glad to have some ; and a florist, above all others, ought to be "ready to give."

Chrysanthemums. Repot these as they increase in size ; stop freely, to encourage bushy growth ; *never* let them flag for want of water.

These will be my floricultural occupations next month, and I wish every owner of a small garden as much pleasure in theirs as I have in mine.

Deal, July 16, 1857.

D.

GARDENERS' ROYAL BENEVOLENT INSTITUTION.

OUR readers will be glad to learn that at the late anniversary dinner of this institution, a large sum was subscribed to its funds. Some have expressed an opinion that a dinner is an unnecessary expence. Mr. Sheriff Mechi, who presided on the occasion, was however of a different opinion. On this point he said : " After long observation, I have found that a dinner in connection with a charity is an essentiality. I knew a charity once whose officials thought they would save money by giving up their dinners, and in lieu of it send round a subscription paper. They tried it once, and after the subscription paper was sent round they found the sum contributed was £3 13s." He strongly urged that the dinner should not be discontinued. Another observation made by the Chairman is well worth recording. In rising to propose the toast of the evening, (the Gardeners' Royal Benevolent Institution), he said that there was great selfishness in human nature ; those who were blessed with much were too much disposed to look to and study their own comfort, and forget that they had a duty to perform to others, and hence it was that institutions such as this were formed. It is too much the case that when our gardeners become old and enfeebled we cast them off, as being of no further use to us, much in the same way as we would an old horse to the knacker's ; but some do not even treat their old horses so. He urged that it was our duty to consider the misfortunes of others as we would our own, particularly of those who contributed so much to our wants and pleasures.

Mr. Roupell, M.P. for Lambeth, Mr. Sheriff Crossley, Mr. Bohn, and Mr. Wrench, all replied in suitable terms to the respective toasts with which their names were connected. To Mr. Cutler, the secretary, thanks were tendered for his active services, and after an evening spent in a most agreeable manner, the meeting separated. The room was brilliantly decorated with a great profusion of flowers, consisting chiefly of Geraniums supplied by Mr. Turner, of Slough, which occupied the whole stage behind the Chairman, and completely filled one end of the room. At the head of the table were some beautiful exotics, principally Orchids, sent by Mr. Veitch, of Chelsea, and there was an excellent dessert, consisting of Pine Apples, Grapes, and other fruits.

FRUIT CULTURE.—No. V.

BY MR. POWELL, ROYAL GARDENS, FROGMORE.

(Continued from page 182.)

HORIZONTAL training is more suitable for the Apple, the Pear, and the Plum than it is for other fruit, especially the Pear; and where the walls are low it is doubtless the best mode of training, *i. e.*, if proper kinds are selected for the purpose; such as those recommended in a previous paper for conical standards will apply to the Pear for horizontal training. The Pear, when trained in this manner, produces its fruit from *spurs* alone; but there are some varieties that will not bear well in this manner, except the *spurs* are allowed to extend from the main branches, which is very unsightly, and the advantage of the wall is lost; it is advisable, therefore, to be careful in selecting the sorts for this mode of training. Horizontal training, fig. 12, consists of a perpen-

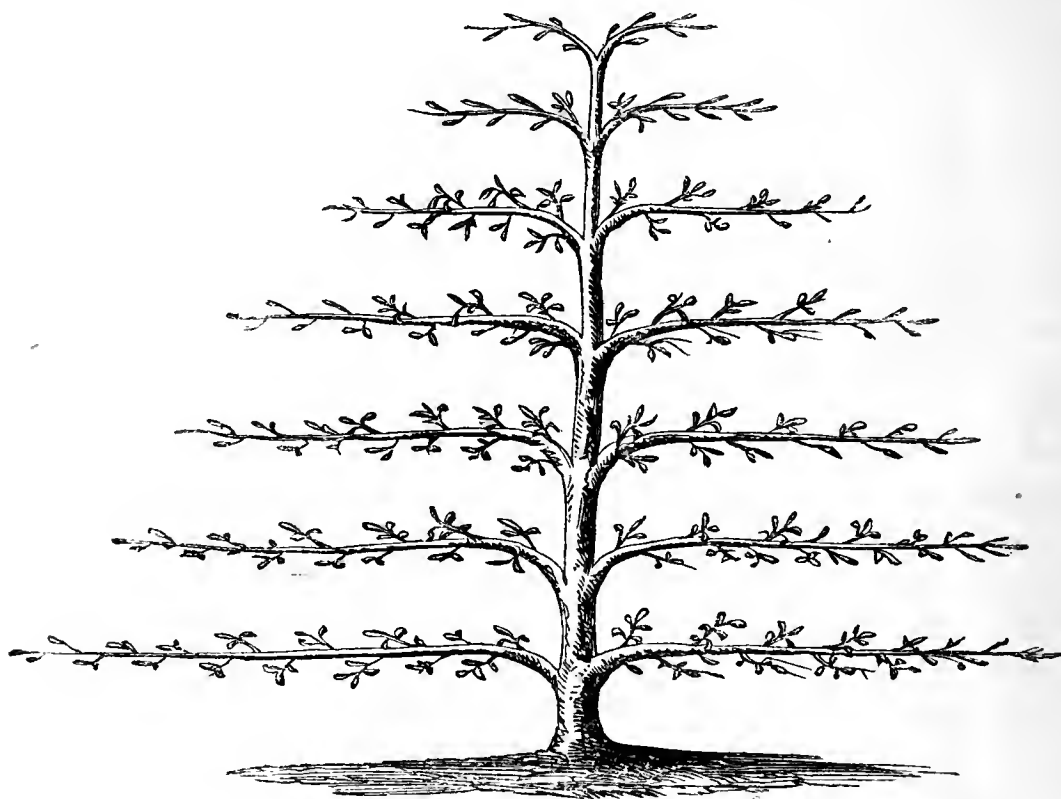


FIG. 12.

dicular stem carried to the top of the wall, with side branches diverging in a horizontal position about a foot apart. To commence a tree of this description select a plant with three shoots, two of which will furnish the lower branches; the other, trained vertically, and shortened to about ten inches, to form the second pair of branches and the leader. During the next summer's growth, if the tree is vigorous, pinch off the point of the centre shoot when it has made a growth of six inches, it will then probably make another pair of branches during the summer; so continue on in the same manner till the tree reaches the top of the wall, when the vertical stem should terminate and form itself into the last pair of horizontal branches. The operation of stopping the leading shoot during the summer must be regulated according to the strength of the tree. With due attention to stopping three pairs of shoots are sometimes got in one season, which is a great advantage, the main object being to

get the tree to the top of the wall and furnished with side branches as soon as possible, after which the tree will only extend on each side, and maintain an equal growth. The horizontal form, when applied to espalier-rail trees, should vary slightly from fig. 12; that is, instead of an upright stem, it is preferable to divide the tree in the centre, so that one side does not interfere with the other, the motive being to divert the upright flow of sap into two channels, which will have a tendency to preserve an equal growth in the tree, and lessen the excessive growth in the centre which is sure to occur in low trees with an upright stem. This mode of growing fruit trees is so well known that it needs but little description here, further than a few hints relative to the formation of the tree which may be of service to the beginner. Stakes are mostly used for fixing the branches, but wires strained about a foot apart, and five in number, are preferable; otherwise, iron wattles with five bars, which will answer well. Choose a tree with four shoots, two of which will form the lower branches; the others brought upwards, and the points trained in a horizontal position at the place where the second

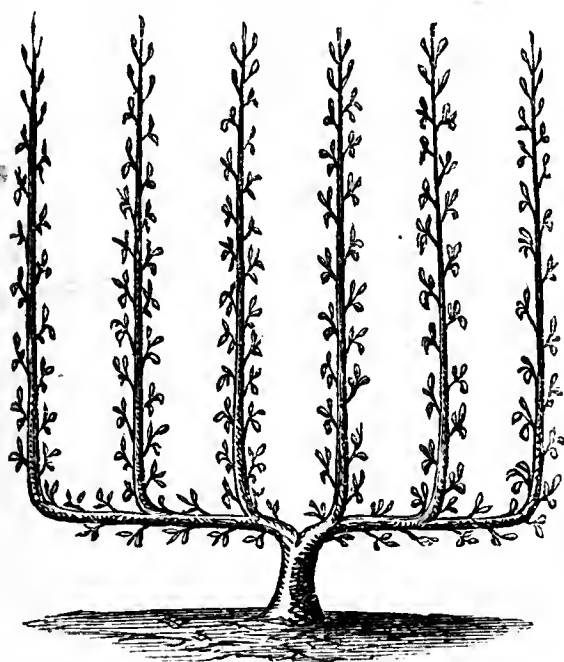


FIG. 13.

branches are required; at the bend of these shoots others will be thrown out the following summer, which must be trained as before, and so on till the tree is furnished with the desired number of horizontal branches: stop all shoots during summer, with the exception of those that are required for leaders.

Although this is a very good plan of growing the Apple, the Pear, the Plum, and Cherry, it is now nearly abandoned in large gardens, the preference being given to bush-trees and pyramids; still it is a very neat way of cultivating fruit in a small garden; it occupies but little space, and may be grown to advantage by the side of the principal walks.

Vertical training is a mode well adapted for the Vine and the Currant, and in order to produce this form a horizontal shoot is trained right and left from the stem, near the base of the wall, from which vertical shoots are trained at equal distances.

Fig. 13 represents a Currant-tree when trained against a wall. The number of vertical shoots to each tree must entirely depend on the height of the wall. If it be twelve feet high the trees should be planted four feet apart, and four vertical shoots trained to each a foot apart; if the walls are not over eight feet train as in fig. 13—then the trees are six feet apart—and furnish them with six vertical shoots. This fashion of growing Currants will not admit of the leading shoots being shortened at the winter pruning, which is the principal cause of trained Currants *dying back* before the allotted space is covered. This, probably, is owing to the pithy nature of the wood, and when trained in an erect position, the wet penetrates into the heart of the shoot, which will either destroy a portion of the wood or engender disease; therefore it is better to allow the vertical shoots to grow at will till they reach the top of the wall, and stop them during the summer growth.

Pears will do very well when trained vertically, but require high walls for the extension of the shoots upwards.

(*To be continued.*)

ERRATUM.—At page 182, for “covered trellises,” read “curved trellises.”

DO FRUIT TREES DEGENERATE?

IN the “Scottish Gardener” for June, there is a long article, entitled “Degeneration in the Cultivated Varieties of Fruits and Flowers.” Nearly at the conclusion of that paper, the writer says, “We have already hinted that the history of the varieties of fruit trees has been very much neglected in this country; of which a paper by Mr. Saul, in the *Florist* for May, puts us in possession of a striking instance. The original Ribston Pippin tree died not more than twenty years ago, and yet the date of its death is not known to Mr. Saul, though he lives within three miles of Ribston Hall. One might have hoped that a point of so much theoretical interest would have been accurately recorded.” The writer of the article in the “Scottish Gardener” will find the history of the original Ribston Pippin tree in the *Florist* for July; and he will there see this “point of so much theoretical interest” “accurately recorded.” He will see it stated that, “the old stem of the Ribston Pippin was blown down, as shown in the cut (in the *Florist*) during a severe storm in 1815, after which only one large branch remained, which was carefully propped up, and while in this state it bore fruit for many years. It lingered until 1835, when it died, and was cut down.”

That is twenty-two years ago. Surely, then, I was not far wrong when I said, “It is something more than twenty years since the original Ribston Pippin tree disappeared.” But the writer in the “Scottish Gardener” will say that the exact date was not recorded, which, as a point of so much theoretical interest, ought to have been. The article of mine in the *Florist* for May was written in a few spare minutes one evening; I merely wished to make known facts which had come under my own personal observation, for the elucidation of truth. I have not been always a resident in this place, consequently I could

not, from personal knowledge, state the exact year the original Ribston Pippin tree died. I had read the history of the tree, and had been told all particulars respecting it; but when I wrote the article for the *Florist* for May I had not time, if I had the inclination, to search for dates. I thought a statement of facts as accurately recorded as they possibly could be from memory, would answer the purpose I had then in view. I hope this brief explanation will satisfy the writer in the "Scottish Gardener." Whilst writing on this subject, I beg to place before the readers of the *Florist* the opinions of one of the best authorities in America, on the wearing out of races, I mean the late A. J. Downing, Esq.

In the preface to his work, entitled "The Fruits and Fruit Trees of America," Mr. D. says, "A man born in one of the largest gardens, and upon the banks of one of the noblest rivers in America, ought to have a natural right to talk about fruit trees," and further on, in speaking of the great number of varieties of fruits, he says, "Hence the numbers of varieties of fruits that are admitted here. Little by little I have summoned them into my pleasant and quiet court, tested them as far as possible, and endeavoured to pass the most impartial judgment upon them. The verdicts will be found in the following pages." I make these extracts to show the writer in the "Scottish Gardener" that Mr. D. was well qualified for the task he undertook.

The following rather lengthy extract from the appendix to his work on fruits, will show what Mr. Downing's opinions were on the subject. "Certain French writers, about this time, gladly seized Mr. Knight's theory as an explanation of the miserable state into which several fine old sorts of Pears had fallen, about Paris, owing to bad culture and propagation. They sealed the death warrant, in like manner, of the Brown Beurré, Doyenne, Chaumontel, and many others.

"Notwithstanding this, and that fifteen or twenty years have since elapsed, it is worthy of notice that the repudiated Apples and Pears still hold their place among all the best cultivators in both England and France. Nearly half the Pear trees annually introduced into this country from France are the Doyenne and Beurré, and the 'extinct varieties' seem yet to bid defiance to theorists and bad cultivators.

"But half the ground is not yet covered. How does the theory work in America? is the most natural inquiry. In this country, we have soil varying from the poorest sand to the richest alluvial, climate varying from frigid to almost torrid—a range wide enough to include all fruits between the Apple and the Orange. We answer that the facts here, judged in the whole, are decidedly against the theory of the extinction of varieties; while here, as abroad, unfavourable soil, climate, or culture, have produced their natural results of a feeble and diseased state of certain sorts of fruit; these are only the exceptions to the general vigour and health of the finest old sorts in the country at large. The oldest known variety of Pear is the Autumn Bergamot—believed by Pomologists to be identically the same fruit cultivated by the Romans in the time of Julius Cæsar—that is to say, the variety is nearly two thousand years old. It grows with as much vigour, and bears as

regular and abundant crops of fair fine fruit in our own garden, as any other sort we cultivate.

“ Whole orchards of the Doyenne (or Virgalieu) are in the finest and most productive state of bearing in the interior of this State, and numberless instances in the Western States; and any one may see, in September, grown in the apparently cold and clayey soil near the town of Hudson, on the North River, specimens of this ‘ Outcast,’ weighing three-fourths of a pound, and of a golden fairness and beauty of appearance and lusciousness of flavour worthy of the garden of the Hesperides,—certainly we are confident never surpassed in the lustiest youth of the variety in France. The same is true of all the other sorts when propagated in a healthy manner, and grown in the suitable soil and climate. Everywhere away from the sea air, and in strong, balmy soil, the fruit is beautiful and good. The largest and finest crops of Pears regularly produced in our own gardens are by a Brown Beurré tree, only too luxuriant and vigorous. Of the Golden Pippin Apple, we can point out trees in the valley of the Hudson, productive of the fairest and finest fruit, and the St. Germain Pears grown by a neighbour here, without the least extra care, are so excellent, that he may fairly set them against any one of the newer varieties of winter fruits.

“ On the other hand we candidly admit that there has been for some time a failure of many sorts of Pear and Apple in certain parts of the country. All along the sea coast, where the climate is rude, and the soil rather sandy, as upon Long Island, in new Jersey, near Hartford, and in places around Boston, many sorts of Pears that once flourished well are now feeble, and the fruit is often blighted. This is owing plainly to two causes: First, to the lightness of the soil, which in this climate, under our hot sun, lays the foundation of more than half the diseases of fruit trees, because, after a few years, the necessary sustenance is exhausted by the roots of a bearing tree, and every one knows how rarely it is re-supplied in this country. We can from our own observations on the effects of soil take a man and mark the sandy district on the whole sea-board, where certain sorts of Pears no longer bear good fruit; while within a few miles, on strong deep loams, the fruit is fair and beautiful—the trees healthy and luxuriant. In the second place, it arises from the constant propagation of the same stock; a stock becoming every year more and more enfeebled in those localities by the unfavourable soil and climate. No care is taken to select grafts from trees in healthy districts, and this feeble habit is thus perpetuated in the young grafted trees until it becomes so constitutional that, in many cases, trees sent from the sea-board into the interior will carry the degenerate habit with them, and are often many years in regaining their normal state of health. To add force to this view, we will add, that we have had the satisfaction, lately, of seeing trees of the condemned varieties taken from healthy interior districts to the sea-board, where they have already borne fruit as fair and unblemished as ever; thus proving that the variety was not enfeebled, but only so much of it as had been constantly propagated in a soil and climate naturally rather unfavourable to it, while in favourable positions it maintained all its original vigour.

“ But there is another interesting point in this investigation. Do the newly originated sorts really maintain in the unfavourable districts the appearance of perfect health? Are the new Pears uniformly healthy when the old ones are always feeble? Undoubtedly this question must be answered in the negative. Some of the latest Flemish Pears already exhibit symptoms of decay or bad health in these districts.”

From the foregoing long extracts the writer in the “ Scottish Gardener ” will see, that, though there are, like himself, some advocates of Mr. Knight’s theory in America, facts are all against them.

Stourton.

M. SAUL.

CUPRESSUS LAWSONIANA.

WE were pleased to see at the Regent Street rooms the last meeting half a dozen plants of this fine Cypress exhibited by Messrs. Waterer and Godfrey, who hold the principal stock of it; as some parties have considered it identical with *Thujopsis borealis*, plants of both were exhibited, very much to the advantage of the Cypress, which is the most graceful and beautiful of its family. From what was said by Dr. Lindley of its habitat, little doubts exist but that it will prove hardy, and consequently become a valuable addition to our out-door Coniferae.

HORTICULTURAL EXHIBITIONS AND PLANT EXHIBITING.

Now that the great summer exhibitions are over, it appears a fitting opportunity to bring them under review, with the object of stating what we consider defective in classing plants for exhibition, as well as their after arrangement in the tents; and likewise to invite exhibitors to state their opinions on this subject, that managers of exhibitions may have the advantage of the discussion in framing their schedules for another season.

In the first place, no objection can be made to such natural groups of plants as Orchids, Lycopods, Ferns—to interfere with which would in a great measure destroy the charm of these exhibitions, than which, when shown by themselves, nothing can be more interesting and beautiful. The same may be said of Heaths, Chinese Azaleas, and Rhododendrons, when shown in separate classes, as they form natural groups, and possess sufficiently distinctive features, as regards colour, to produce effect. We may take variegated plants in the same sense as to colour, and add that, although any of the last named may be—and very frequently are—mixed with other plants for forming collec-

tions, we think (except under very close limitations), they should be excluded from mixed collections of plants.

Having looked narrowly over the principal mixed collections exhibited this season, we think that these groups lose much as regards completeness (and we will say effectiveness too), by containing stove and greenhouse plants mixed together. We venture an opinion that one of these groups—let it contain 15, 10, or 8 plants—should form a complete *whole* when viewed together as a collection, and that each plant composing it should partake in a greater or less degree of the character or habit belonging to the group. Besides this, the plants forming the group should possess sufficient diversity of colour that when arranged an harmonious effect would be produced; and further, the plants in each group should approximate to some decided form of training.

It must be obvious that to effect this mixed collections cannot be allowed; such plants as *Clerodendron Kæmpferi* and *fallax*, *Statice*s, and even *Allamandas* and *Ixoras*, have no features in common, and cannot be made to group effectively with *Dillwynias*, *Dracophyllums*, *Boronias*, *Leschenaultias*, *Tetrathecas*, &c., and yet they are seen mixed together in nearly every collection we pass by. Both classes of plants are beautiful in their way, but they only produce an incongruous group when placed together. At the Chiswick Exhibition we noticed a plant of *Vinca rosea* in the very fine collection shown by Mr. Dods, and to our mind that single plant destroyed the individuality of the group. But we would carry our principles even further than this, by excluding *Azaleas* and *Heaths* from mixed greenhouse plants; for we can see no difficulty in forming collections of hard-wooded greenhouse plants without having recourse to the above, and our objection against admitting *Azaleas* in combination with these latter, is, we think, well founded. On this point, why not admit *Pelargoniums*?

Your readers will gather from what is here stated that we would show each class separately. Collections of plants, as now exhibited, although giving unmistakable evidence of the highest skill in cultivation, are limited as to variety. There is a deal of what may be called conventionalism in exhibiting. Some successful grower brings forward a plant—common enough, perhaps, and easy to grow—when he is followed by all the rest. And, indeed, the collections consist of a mere repetition of some dozen plants, varied only by adding *Heaths* and *Azaleas*, to make up the complement. Supposing, then, this distinction really made, and that collections of hard-wooded greenhouse plants in 12 or 15 varieties, and of stove plants alone in twelves or nines, I think the groups would present a more satisfactory appearance; and by placing a group of stove plants (many of which have magnificent foliage as well as flowers), between each collection of greenhouse plants, the appearance of the tents, in our opinion, would be an improvement on the indiscriminate mixing which now prevails. Beautiful as is “the bank of *Orchids*,” which some exhibitors report on so eloquently, we are strongly inclined to think that if collections of these were separated by a group of *Ferns*, both would benefit by the contrast, and that greater distinctness and individuality would be obtained by the arrangement.

We alluded just above that plants in the same collection should be trained as near alike as their habit will permit. By this we must not be misunderstood as advocating a mere formality; but we object to plants trained in three or four different styles being classed together; we have seen plants trained on globe trellis, balloon ditto, upright ditto, some trained with stakes in a mushroom shape over the pot, and others growing in nearly their natural form, in the same collection! Now we submit whether a collection, however admirable in other respects, does not lose immensely in the eyes of the man of taste by combining such dissimilarly trained plants in one group. Now we are on the subject of trained plants, we confess to a disappointment in the usual form in which trellises are manufactured. The general appearance of plants trained to pot trellis should be graceful and elegant, and we cannot see why trellises combining the suitable support for climbing plants should not be made of tasteful, if not artistic outlines. Stove climbers are among the most beautiful plants in creation; but the graceful forms which they assume when growing in a natural state are in a great measure lost when they are tortured and twisted about, to bring them into a form the reverse of natural. We would sooner see a *Dipladenia* or an *Echites* tied to three stakes than trained in the form we sometimes see them.

We hope one or all of our leading societies will give prizes for old or neglected plants. There is a number of really good things scarcely known to our exhibitionists, or, if known, unheeded; but once let liberal prizes be offered to them, and the nurseries will be brushed up for some hitherto neglected plants. We scarcely ever see *Acacias* exhibited; nor do we ever remember seeing such things as *Beaufortia decussata*, *Enkianthus quinqueflorus*, *Metrosideros crassifolia* and *floribunda*, *Nerium splendens*, and one or two others—fine old things—now seldom seen, but which in our estimation are superior to many exhibition plants of the present day. As a proof that such plants only require being known to command admiration, we may advert to that very old Cape plant, *Hæmanthus coccineus*, shown the other day in Regent-street, by Mr. Blandy's gardener—a plant unknown to nearly all the trade.

Want of space forbids us noticing other plants which might form subjects on which to exercise the plant-grower's skill. We conclude for the present, therefore, with laying our ideas before your readers. Far be it from us to throw a damp on exhibitions, than which nothing shows so clearly the great skill of our horticulturists. Let us only add taste in selection and arrangement to our exhibitions, and they will be unequalled.

OBSERVER.

With these preliminary remarks of our correspondent's, in which we quite concur, we will now proceed to redeem our promise made in a former number to give, in a tabular form, at the end of the season, a list

of the exhibitors who have been most successful at our great metropolitan shows this year. These, after a careful examination of the different prize lists, we find to be as follow:—

	Regent's Park, May 20.	Crystal Palace, May 30.	Chiswick, June 3.	Regent's Park, June 18.	Regent's Park, July 1.
20 EXOTIC ORCHIDS (<i>Amateurs</i>).					
Mr. Gedney, gr. to Mrs. Ellis, Hoddesdon	1	1	..	1	2
Mr. S. M. Carson, gr. to W. F. G. Farmer, Esq., Nonsuch Park, Surrey	2	..	..	..	..
Mr. S. Woolley, gr. to H. B. Ker, Esq., Cheshunt	3	2	..	3	3
Mr. Keele, gr. to J. Butler, Esq., Woolwich . . . . .	..	..	..	2	1
20 EXOTIC ORCHIDS (<i>Nurserymen</i>).					
Messrs. James Veitch & Son, Exotic Nurseries, Exeter and Chelsea . . . . .	..	1	..	..	..
Messrs. T. Jackson & Son, Kingston . . . . .	..	2	..	..	..
Mr. R. Parker, Paradise Nursery, Holloway . . . . .	..	3	..	..	..
16 EXOTIC ORCHIDS (<i>Nurserymen</i>).					
Messrs. T. Jackson & Son, Kingston	1	..	..	2	2
Mr. R. Parker, Holloway	2	..	..	3	3
Messrs. James Veitch & Son, Exeter and Chelsea . . . . .	..	..	..	1	1
15 EXOTIC ORCHIDS (<i>Amateurs</i>).					
Mr. C. Pilcher, gr. to S. Rucker, Esq., F.H.S., Wandsworth . . . . .	..	..	1	..	..
Mr. Gedney, gr. to Mrs. Ellis, Hoddesdon . . . . .	..	..	2	..	..
Mr. S. Williams, gr. to C. B. Warner, Esq., Hoddesdon . . . . .	..	..	3	..	..
15 EXOTIC ORCHIDS (<i>Nurserymen</i>).					
Messrs. James Veitch & Son, Exeter and Chelsea . . . . .	..	..	1	..	..
Messrs. T. Jackson & Son, Kingston . . . . .	..	..	2	..	..
Mr. R. Parker, Paradise Nursery, Holloway . . . . .	..	..	3	..	..
12 EXOTIC ORCHIDS (<i>Amateurs</i>).					
Mr. M. Clarke, gr. to C. Webb, Esq., Hoddesdon	1	2	..	1	1
Mr. Keele, gr. to J. Butler, Esq., Woolwich	2	3	..	..	..
Mr. Morris, gr. to Coles Child, Esq., Bromley	3	4	..	3	2
Mr. Carson, gr. to W. F. G. Farmer, Esq., Nonsuch Park . . . . .	..	1	..	2	..
10 EXOTIC ORCHIDS (<i>Amateurs</i>).					
Mr. Carson, gr. to W. F. G. Farmer, Esq., Nonsuch Park . . . . .	..	..	1	..	..
Mr. Keele, gr. to J. Butler, Esq., Woolwich . . . . .	..	..	2	..	..
Mr. S. Woolley, gr. to H. B. Ker, Esq., Cheshunt . . . . .	..	..	3	..	..
6 EXOTIC ORCHIDS.					
Mr. Dods, gr. to Sir J. Cathcart, Englefield Green	1	1	4	..	2
Mr. Green, gr. to Sir E. Antrobus, Lower Cheam	1	3	..	3	..
Mr. R. Grix, gr. to A. Palmer, Esq., Cheam	2	2	1	..	..
Mr. J. Dedman, gr. to G. Foster, Esq., Regent's Park	3	..	..	..	..
Mr. Barter, gr. to A. Bassett, Esq., Stamford Hill . . . . .	..	..	2	4	..
Mr. H. Woolley, gr. to H. B. Ker, Esq., Cheshunt . . . . .	..	..	3	..	..

	Regent's Park, May 20.	Crystal Palace, May 30.	Chiswick, June 3.	Regent's Park, June 18.	Regent's Park, July 1.
Mr. Bunney, Stratford	1	3
Mr. Iveson, gr. to the Duke of Northumberland, Syon House	2	4
Mr. Carson, gr. to W. F. G. Farmer, Esq., Nonsuch Park	1
Mr. Page, gr. to W. F. Leaf, Esq., Streatham	4
25 STOVE AND GREENHOUSE PLANTS, GROUPED FOR EFFECT, IN OR OUT OF FLOWER.					
Messrs. James Veitch & Son, Exeter and Chelsea	..	1	..	..	..
Mr. R. Parker, Paradise Nursery, Holloway .	..	2	..	..	..
Mr. A. Bye, gr. to G. S. Wintle, Esq., Uppercote Gardens, Gloucester	3	..	..	..
Messrs. T. Jackson & Son, Kingston	4	..	..	..
Mr. S. Morris, gr. to Coles Child, Esq., Bromley	..	5	..	..	..
Mr. G. Young, gr. to W. Stone, Esq., Dulwich Hill	5	..	..	..
Mr. W. J. Epps, Bower Nurseries, Maidstone .	..	6	..	..	..
20 STOVE AND GREENHOUSE PLANTS, IN FLOWER.					
Mr. T. Whitbread, gr. to H. Colyer, Esq., Dart- ford	1	..	..	..
Mr. Green, gr. to Sir E. Antrobus, Lower Cheam.	..	2	..	..	..
Mr. W. Taylor, gr. to J. Costar, Esq., Streatham.	..	2	..	..	..
Mr. Page, gr. to W. Leaf, Esq., Streatham .	..	3	..	..	..
Mr. E. A. Hamp, gr. to James Thorne, Esq., South Lambeth	2	..	..	..
Mr. W. J. Epps, Maidstone	extra	..	..	..
20 STOVE AND GREENHOUSE PLANTS, OF REMARK- ABLE FOLIAGE, WITHOUT REFERENCE TO BLOOM.					
Mr. R. Parker, Paradise Nursery, Holloway	1
Mr. W. Cutbush, Nurseryman, Barnet	2
Messrs. T. Jackson & Son, Kingston	3
16 STOVE AND GREENHOUSE PLANTS (<i>Amateurs</i>).					
Mr. T. Whitbread, gr. to H. Colyer, Esq., Dart- ford	1	..	..	1	1
Mr. J. Green, gr. to Sir E. Antrobus, Cheam .	2	..	..	2	4
Mr. W. Taylor, gr. to J. Costar, Esq., Streatham	3	..	..	3	3
Mr. Hamp, gr. to J. Thorne, Esq., South Lambeth	4	..	..	..	..
Mr. Dods, gr. to Sir John Cathcart, Englefield Green	2
15. MIXED STOVE AND GREENHOUSE PLANTS IN FLOWER.					
Mr. Dods, gr. to Sir J. Cathcart, F.H.S., Englefield Green	1	..	..
Mr. Green, gr. to Sir E. Antrobus, F.H.S., Cheam	2	..	..
Mr. W. Taylor, gr. to J. Costar, Esq., Streatham	3	..	..
Mr. Barter, gr. to A. Basset, Esq., Stamford Hill	extra	..	..
Mr. Rhodes, gr. to P. Philpott, Esq., Stmfrd. Hill	extra	..	..
12 STOVE AND GREENHOUSE PLANTS (<i>Amateurs</i>).					
Mr. Dods, gr. to Sir J. Cathcart, Englefield Green	..	1	..	..	..
Mr. B. Peed, gr. to T. Tredwell, Esq., Norwood	..	3	..	..	..

	Regent's Park, May 20.	Crystal Palace, May 30.	Chiswick, June 8.	Regent's Park, June 18.	Regent's Park, July 1.
Mr. S. M. Carson, gr. to W. F. G. Farmer, Esq., Non uch Park	..	2	..	..	..
Mr. S. Morris, gr. to Coles Child, Esq., Bromley	..	4	..	..	..
12 STOVE & GREENHOUSE PLANTS (<i>Nurserymen</i>).					
Mr. W. Cutbush, nurseryman, Barnet	1	..	..	1	1
Messrs. J. & J. Fraser, Lea Bridge Rd. Nursery, Leyton	2	..	..	2	2
Mr. W. J. Epps, Maidstone	..	..	..	3	..
10 STOVE AND GREENHOUSE PLANTS (<i>Amateurs</i>).					
Mr. G. Barter, gr. to A. Bassett, Esq., Stamford Hill	1	..	..	2	2
Mr. Dods, gr. to Sir J. Cathcart, Englefield Green	2	..	..	1	..
Mr. B. Peed, gr. to T. Tredwell, Esq., Norwood	2	..	..	2	1
Mr. M. Clarke, gr. to C. Webb, Esq., Hoddesdon	3	..	..	..	..
Mr. Carson, gr. to W. F. G. Farmer, Esq., Cheam	3	..	..	..	..
Mr. R. Baxendine, gr. to W. H. H. Smallpiece, Esq., Rydinghurst	4	..	..	..	..
Mr. Morris, gr. to Coles Child, Esq., Bromley	..	..	..	3	5
Mr. Hamp, gr. to James Thorne, Esq., South Lambeth	..	..	..	4	4
Mr. R. Hart, gr. to L. Abraham, Esq., Bath	..	..	..	..	3
10 STOVE AND GREENHOUSE PLANTS.					
Mr. B. Peed, gr. to T. Tredwell, Esq., Norwood	..	..	1	..	..
Mr. Carson, gr. to W. F. G. Farmer, Esq., Cheam	..	..	2	..	..
Mr. W. Cutbush, F.H.S., Barnet	..	..	3	..	..
Mr. R. Baxendine, gr. to W. H. H. Smallpiece, Esq., Rydinghurst	..	..	extra	..	..
6 STOVE AND GREENHOUSE PLANTS—DISTINCT (<i>Amateurs</i>).					
Mr. Rhodes, gr. to P. Philpott, Esq., Stamford Hill	1	..	..	2	..
Mr. J. Peed, gr. to C. T. Gabriel, Esq., Streatham	2	..	..	..	..
Mr. Morris, gr. to Coles Child, Esq., Bromley	3	..	..	..	..
Mr. T. Frost, gr. to E. L. Betts, Esq., Preston Hall, Maidstone	..	..	..	..	3
Mr. T. Williams, gr. to Miss Traill, Hayes' Place, Kent	..	..	..	3	4
Mr. Carson, gr. to W. F. G. Farmer, Esq., Cheam	..	..	..	1	2
Mr. Page, gr. to W. Leaf, Esq., Streatham	..	..	..	..	1
6 STOVE AND GREENHOUSE PLANTS.					
Mr. Rhodes, gr. to P. Philpott, Esq., Stamford-hill	..	2	2	..	..
Mr. J. Peed, gr. to C. T. Gabriel, Esq., Streatham	..	1	3	..	..
Messrs. W. Cutbush & Son, Nurserymen, Highgate	..	3	..	..	..
Mr. Frost gr. to E. L. Betts, Esq., Maidstone	..	4	..	..	..
Mr. W. Kaill, gr. to the Earl of Lovelace	..	4	..	..	..
Mr. Webb, gr. to H. Walmisley, Esq., Tulse Hill	..	extra	..	..	..
Mr. G. Young, gr. to W. Stone, Esq., Dulwich Hill	..	extra	..	..	..
Mr. R. Baxendine, gr. to W. H. H. Smallpiece, Esq., Rydinghurst	..	extra	..	..	..
Mr. G. T. Bruck, gr. to J. Tritton, Esq., Norwood	..	extra	..	..	..
Mr. T. Williams, gr. to Miss Traill, Hayes Place	..	extra	..	..	..

	Regent's Park, May 20.	Crystal Palace, May 30.	Chiswick, June 3.	Regent's Park, June 18.	Regent's Park, July 1.
Mr. J. George, gr. to J. W. Nicholson, Esq., Stanford Hill . . . . .	...	extra	...	...	...
Mr. Dods, gr. to Sir J. Cathcart, Englefield Green	...	...	1	...	...
Mr. W. Cutbush, nurseryman, Barnet . . . . .	...	...	extra	...	...
20 VARIEGATED PLANTS.					
Messrs. J. Veitch & Son, Exeter and Chelsea . . . . .	...	...	1	...	...
Mr. R. Parker, Paradise Nursery, Holloway . . . . .	...	...	2	...	...
Mr. Bye, gr. to G. S. Wintle, Esq., Gloucester . . . . .	...	...	3	...	...
Messrs. T. Jackson & Son, Kingston . . . . .	...	...	3	...	...
Mr. Cutbush, nurseryman, Barnet . . . . .	...	...	3	...	...
Mr. J. Salter, nurseryman, Hammersmith . . . . .	...	...	4	...	...
NEWLY INTRODUCED OR RARE PLANTS, REMARKABLE FOR THEIR BEAUTY IN FLOWER.					
Messrs. J. Veitch & Son, Exeter and Chelsea	1-2	1-3	2-3	1	...
Messrs. T. Jackson & Son, Kingston	1	2	...	...	2-3
Messrs. J. Backhouse & Son, nurserymen, York . . . . .	...	...	1	...	...
Mr. R. Parker, Paradise Nursery, Holloway	2	...	...	2	...
Mr. J. Standish, nurseryman, Bagshot	2	...	...	...	...
Mr. Glendinning, nurseryman, Chiswick	3	...	...	...	...
Mr. W. Cutbush, Barnet . . . . .	...	...	...	2	...
Mr. J. Harlock, gr. to R. W. Nutter, Esq., Wanstead . . . . .	...	...	...	3	...
Mr. Parsons, Danesbury Gardens, Welwyn . . . . .	...	...	...	...	1-2
Mr. Thos. Ingram, Royal Gardens, Frogmore . . . . .	...	...	...	...	2
Mr. Matthews, nurseryman, Clapham Rise . . . . .	...	...	...	...	2
NEWLY INTRODUCED OR EXTREMELY RARE PLANTS, NOT IN FLOWER.					
Mr. R. Glendinning, Chiswick . . . . .	...	1	2	...	...
Messrs. Jas. Veitch & Son, Exeter and Chelsea . . . . .	...	2-3	1	...	...
Messrs. W. Cutbush & Son, Highgate . . . . .	...	3	...	...	...
12 PLANTS WITH FINE FOLIAGE, NOT IN FLOWER.					
Messrs. Jas. Veitch & Son, Exeter and Chelsea . . . . .	...	...	1	...	...
Mr. R. Parker, Paradise Nursery, Holloway . . . . .	...	...	2	...	...
Mr. Bye, gr. to G. S. Wintle, Esq., Gloucester . . . . .	...	...	3	...	...
12 PELARGONIUMS (<i>Nurserymen</i>).					
Mr. C. Turner, Royal Nursery, Slough	1	1	1	1	1
Messrs. Dobson & Son, Isleworth	2	3	2	3	...
Messrs. J. & J. Fraser, Lea Bridge Road	3	2	3	2	2
Mr. W. Bragg, Star Nursery, Slough . . . . .	...	4	Comd.	...	3
Messrs. W. Cutbush & Son, Highgate . . . . .	...	5	...	...	...
Mr. Thomas Gaines, nurseryman, Battersea . . . . .	...	5	...	4	4
12 PELARGONIUMS (<i>Amateurs</i>).					
Mr. Nye, gr. to E. Foster, Esq., Clewer, Windsor . . . . .	...	1	...	...	...
Mr. J. Wiggins, gr. to E. Beck, Esq., Isleworth . . . . .	...	2	...	...	...
Mr. T. Windsor, gr. to — Cannon, Esq., Hampstead . . . . .	...	3	...	...	...
Mr. W. Holder, gr. to Rev. E. Coleridge, Eton College . . . . .	...	4	...	...	...
Mr. J. Weir, gr. to J. Hodgson, Esq., Hampstead . . . . .	...	5	...	...	...
Mr. Geo. Lambert, gr. to Hon. F. Baring, M.P., Oakwood, Chichester . . . . .	...	6	...	...	...

	Regent's Park, May 20.	Crystal Palace, May 30.	Chiswick, June 3.	Regent's Park, June 18.	Regent's Park, July 1.
10 PELARGONIUMS (<i>Amateurs</i>).					
Mr. Nye, gr. to E. Foster, Esq., Clewer . . .	1	..	..	1	..
Mr. Wiggins, gr. to E. Beck, Esq., Isleworth . .	2	..	..	..	..
Mr. Weir, gr. to J. Hodgson, Esq., Hampstead .	3	..	..	5	..
Mr. Holder, gr. to Rev. E. Coleridge, Eton Coll.	..	..	..	2	1
Mr. Windsor, gr. to — Cannon, Esq., Hampstead	..	..	..	3	3
Mr. Swannell, gr. to J. Russell, Esq., Harrow .	..	..	..	4	2
Mr. Wakefield, gr. to Miss Palmer . . . . .	..	..	..	..	4
8 PELARGONIUMS (<i>Amateurs</i>).					
Mr. Wiggins, gr. to E. Beck, Esq., Isleworth . .	..	..	1	..	..
Mr. Nye, gr. to E. Foster, Esq., Clewer . . . .	..	..	2	..	..
Mr. Windsor, gr. to — Cannon, Esq., Hampstead	..	..	3	..	..
Mr. Weir, gr. to J. Hodgson, Esq., Hampstead	..	..	Comd.	..	..
8 FANCY PELARGONIUMS (<i>Nurserymen</i>).					
Mr. C. Turner, Royal Nursery, Slough . . . . .	..	..	1	..	..
Messrs. J. & J. Fraser, Lea Bridge Road . . . .	..	..	2	..	..
Mr. W. Bragg, Star Nursery, Slough . . . . .	..	..	3	..	..
6 FANCY PELARGONIUMS (<i>Nurserymen</i>).					
Mr. C. Turner, Royal Nursery, Slough	1	1	..	2	1
Messrs. J. & J. Fraser, Lea Bridge Road	2	2	..	1	1
Mr. W. Bragg, Slough	3	3	..	..	..
Messrs. Dobson & Son, Isleworth	4	Extra.	..	..	..
Mr. Thos. Gaines, Battersea . . . . .	..	Extra.	..	4	3
6 FANCY PELARGONIUMS (<i>Amateurs</i>).					
Mr. Bousie, gr. to the Rt. Hon. H. Labouchere, M.P., Stoke Park, Slough	1	1	1	..	..
Mr. Windsor, gr. to C. Cannon, Esq., Hampstead	2	2	2	3	..
Mr. Weir, gr. to J. Hodgson, Esq., Hampstead	3	4	3	4	..
Mr. Bray, gr. to Sir J. Goldsmid, Bart., Regent's Park	4	..	..	2	3
Mr. G. Lambert, gr. to Hon. F. Baring, M.P., Oakwood . . . . .	..	3	..	..	..
Mr. W. Mockett, gr. to J. Allnutt, Esq., Clapham	..	5	..	..	..
Miss Palmer, Marylebone . . . . .	..	..	..	3	..
Mr. Keble, gr. to Mrs. Davis, Spring Grove . .	..	..	..	4	..
Mr. Shrimpton, gr. to A. Doxat, Esq., Putney .	..	..	..	..	2
Mr. James, gr. to W. F. Watson, Esq., Isleworth	..	..	..	..	4
6 PELARGONIUMS (new varieties).					
Mr. C. Turner, Slough . . . . .	..	..	..	1	1
Mr. Nye, gr. to E. Foster, Esq., Clewer Manor .	..	..	..	2	..
Messrs. Dobson & Son, Isleworth . . . . .	..	..	..	3	..
Mr. Holder, gr. to Rev. E. Coleridge, Eton Coll.	..	..	..	3	2
Messrs. J. & J. Fraser, Lea Bridge Road . . . .	..	..	..	..	3
6 LARGE PELARGONIUMS (merit to consist in health, large size, and abundance of bloom).					
Mr. C. Turner, Slough . . . . .	..	..	..	..	1
Messrs. J. & J. Fraser, Lea Bridge Road . . . .	..	..	..	..	2
Mr. Holder, gr. to Rev. E. Coleridge, Eton Coll.	..	..	..	..	3
Mr. Shrimpton, gr. to A. Doxat, Esq., Putney .	..	..	..	..	4
6 SCARLET PELARGONIUMS.					
Mr. Bragg, Star Nursery, Slough . . . . .	..	..	..	..	2
Messrs. F. & A. Smith, nurserymen, Dulwich .	..	..	..	..	2

We may take this opportunity of remarking that the show of implements and other manufactured articles held in connection with the June display of plants and fruit at Chiswick was extremely interesting, and perfectly successful. Neat examples of glass houses were furnished by several of the principal builders of such erections; boilers and heating apparatuses were numerous; garden engines; liquid manure distributors and syringes were present in every possible shape; and of ordinary garden tools there were large collections. Four or five firms showed mowing machines, a trial of which ended in favour of Messrs. Green's, of Leeds; and among transplanting apparatus Mr. McGlashan exhibited his now well-known ingenious appliances. Nor were garden seats, vases, fountains, aquaria, and things of an ornamental description omitted; on the contrary, these were present in abundance, as were also pumps, tents, protecting material, and wire-work. Of all these, and of many more things not here enumerated, we had intended to have furnished a lengthened account this month; the publicity, however, which has already been given to this department of the exhibition, not only in the shape of a special catalogue on the subject published by the Society, but also through the columns of our weekly contemporaries, has led us to believe that any such account given now could only be in a great measure a repetition of matters with which our readers are already familiar; we therefore prefer reserving the limited space at our command for other subjects of a more pressing character. Permit us, however, to mention one article alike useful to the amateur and gentleman's gardener, viz., the Canterbury hoe. This is a three-tined drag hoe, with a head about six inches square, and a handle four feet six inches in length. It is a clean working tool, which for stirring the soil among growing crops must be found of the utmost service. It is, in short, an implement that cannot be too highly recommended. This was shown by Mr. Thornton, of Turnham Green.

WHY ARE NOT AMERICAN PLANTS MORE GENERALLY GROWN?

I ASK the question, for I see but comparatively small numbers of them planted. Perhaps, however, I may be misunderstood by using the word American plants, for my present question has reference only to the *Rhododendron*, and of those only to two species and their varieties, viz., *ponticum* and *catawbiense*. I will, therefore, if you please, Mr. Editor, put in claim for these two, and particularly for the *ponticum*, which I believe to be the most really useful evergreen ornamental plant we have, and I should like to see it growing in every wood, plantation, and shrubbery in the three kingdoms, as frequently as the Laurel, to which I contend it is a superior plant, hardier, easier to keep in order, and very nearly as cheap at first cost.

Is it that there still lingers an opinion that these bog plants, as they are sometimes called, will not grow without bog, peat, or heath soil? I expect there is, for on my recommending a gentleman the other day to

plant about 20 acres as underwood and cover for game, he asked me where he was to get the bog earth from; "for," said he "my beds in the garden cost me 20*l.* each for that article alone." I saw, too, in a periodical the other day a writer gravely assert the *Rhododendron* refused to grow on the chalk or soils containing lime. If they do not grow with him it is not so elsewhere with my two *proteges*; for I shall put out of the question for the present everything else. My first endeavour will be to get country gentlemen to fill their woods with them, and planters to make them a substitute for common Laurel and Privet, when filling up masses. Both kinds are equally hardy, but I will take for preference the *R. ponticum*, which I can prove will grow in any soil which will support a Laurel, and in many where this refuses to grow at all. As for situation or exposure, it is not at all particular, excepting on very dry banks, and even there it may be managed, if the directions I give further on are attended to. Both of them, however, grow fastest on sandy or peaty loams—and with no more preparation than is necessary for the Laurel on stiff clays.

When large breadths of evergreens are required to form shelter, or for blocking up, or as undergrowth for woods, the common Laurel and sometimes Privet are usually planted; the cheapness of Laurel at first cost and its rapid growth are its chief recommendations for filling up in the eyes of the planter. But with the exception of the Holly, Berberis, and Tree Box—three plants I have no wish to interfere with—I beg to submit that *R. ponticum* is a much superior plant for the purpose, admitting *time* into the consideration. Granted that common Laurel by growing faster produces a more immediate effect; yet, after the lapse of a dozen years, it will require an annual expense in heading down, supposing it planted for cover, or it soon becomes naked at the bottom; and when employed as a shrubbery plant either for producing shelter or forming masses, it requires when the first half dozen years are over, constant pruning with the knife, and with this even it will in time overgrow the knife and require heading back, which gives it for a time an unsightly appearance. Perhaps I may be somewhat prejudiced against the Laurel, from having to deal with acres of them, and knowing the annual expense in keeping them within bounds. Had I the same quantity of *Rhododendrons* to keep in order, they would not cost a tenth of the sum now paid for the former, and we should get the addition of their display of bloom in June, and a more compact mass as an *evergreen* during the rest of the year. There is abundance of proof that in ordinary soils the *R. ponticum* will form a bush of 18 or 20 feet high, and as many through, and with only cutting in a straggling shoot now and then, will form a dense mass of foliage, unequalled in my opinion in its way. It takes some time to get to this size; but in open situations it grows bushy from a young plant, and as such it becomes valuable for the shrubbery; either for grouping in masses, or as single plants, or for filling up under trees, where, however, it should not be mixed with other evergreens. I can also strongly recommend it as a suitable plant for small villa residences, where a good deal of massing for effect is wanted in a small space, and for which its compact growth and dense habit particularly qualify it.

As a plant for producing cover for game *R. ponticum* has no equal; for while nothing besides seems too bitter or astringent in the bark of trees for the natural order "*Rodentia*," (whose propensities for gnawing and biting are well known to our foresters) the Pontic Rhododendron they do not like—for what reason I know not; but while every other plant and tree in the woods is often frightfully gnawed, and sometimes downright destroyed, by the bark being eaten off all round, this plant remains untouched; and as it easily lends itself to clothe the under surface of woods, it should be generally employed for this purpose. Another valuable property this plant possesses for an underwood is this—that it will grow and form a good cover without obstructing the view of the stems of the trees from the *walks* or *rides*; an important point—as we often see the interior of woods and the trunks of their inmates obstructed from the view by the growth of the underwood, which is not the case when Rhododendrons are planted: and even supposing they do get up here and there, and show themselves off among their patrons—what gives such a charm to woodland scenery as the various shades of their rich purple flowers, mixing with the green forest foliage, in June?

The exhibitions of American plants, as seen about London, give us but a small idea of what they really are when growing in their natural luxuriance—beautiful as such exhibitions are, and valuable as showing the new garden kinds. To get a knowledge of the effect produced by the common varieties, when growing wild, a drive through the magnificent woods on Lord Carnarvon's demesne at Highclere should be taken, when their merits will be appreciated on the spot. Or, let sceptical individuals pay a visit to Tottenham Park, the Marquis of Aylesbury's seat near Marlborough, and our good friend, Mr. Burn, shall take them to the end of the conservatory, and allow them to feast their eyes on the most beautiful bank in the kingdom, planted by his own hands, and extending far away under the shade of the magnificent Beech, forming a mass of gorgeous bloom in the season without an equal, and worth going a hundred miles to see.

When practicable, the ground intended for Rhododendrons should be trenched and well broken up before planting; strong soils, approaching to clays, will be the better for some kind of refuse to be mixed with it. I have found the long Grass, Moss, and decayed leaves (usually found in woods) an excellent material to mix with the soil for them, as the roots will follow this material in the interstices formed by its decay, and cling to the clay in their progress: if time can be spared, it is a good plan to place a quantity of this stuff round the plants after planting. The great point in getting Rhododendrons to start is to mind the soil about the roots does not get dry. Thick planting, so as to cover the soil, is one plan; the next is mulching, which may be done with any material that will prevent evaporation. There is, with few exceptions, rain enough falling in Britain to keep these plants in health in the driest spot, if prevented from escaping by evaporation, and if the soil can be kept *damp* through the growing season, the Rhododendron cares not much for the soil in which it is placed, its hair-like roots will take up moisture sufficient for its use from almost any soil tolerably open, provided it is uniformly

supplied with moisture. This I have found the only secret in the matter. My mulching materials are just what I can most easily get—litter, trimmings and dressings of hedges and trees, long Grass, Moss, or even stones—anything that will arrest evaporation.

I may, perhaps, notice the *garden* varieties at a future time.

RUSTICUS.

SHADED GERANIUM BED, SURROUNDED BY A SCROLL OF YEW.

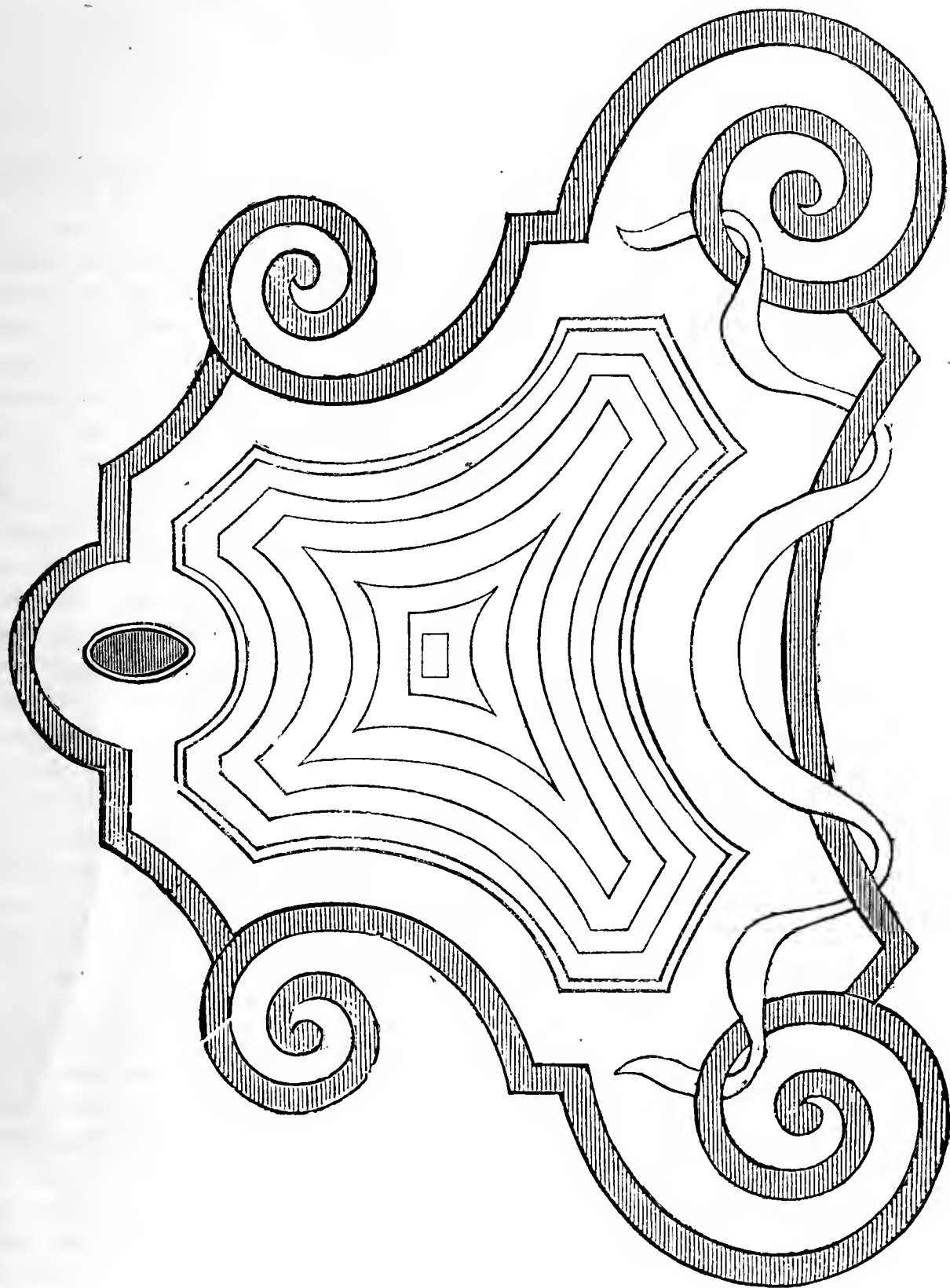
THE annexed woodcut is intended to represent a shaded mass of Geraniums artistically arranged in concentric bands inside a scroll work of Yew. The pattern, though simple, when neatly executed and judiciously planted, must doubtless be uncommonly pretty; and it admits, as will be seen, of being laid down on a large or small scale, according to the taste or convenience of the designer. An embossed ribbon of gold Box is thrown gracefully across the top of the bed. This is to be shaven round, and—as will be seen on reference to the plan—is to be made to dip here and there under the fantastic windings of the Yew. The outside scroll of the latter is to be cut square, 12 inches in depth, and 18 inches in height. The narrower joinings of Yew scroll are also to be square and neatly cut, 10 inches in width, and a foot in height. The margin of the bed is to consist of Box, 4 inches high and 8 inches wide; that to oval bed at bottom is to be of the same dimensions. The space between the Box edging and Yew scroll is intended to be covered with finely-sifted gravel, of a reddish colour. This, however, might be varied according to taste. Outside the bed is to be neatly cut turf, which must come close up to the edge of the Yew scroll. The space inside the latter is to be filled with Geraniums, planted so as to form a shaded bed, from white up to bright scarlet. The first band inside the boundary is to be composed of the white Ivy-leaved sort; the second, Hendersoni, which is also white; third, Lucea Rosea; fourth, Salmon Nosegay; fifth, La Titian; and sixth, Judy. The central mass is to consist of Shrubland Queen, a bright scarlet kind, with horse-shoe foliage. These colours will be found to blend well together, and when the plants are suitably selected as to height, the effect cannot fail to be truly charming.

The oval bed at the bottom of the figure is to be filled with dwarf orange and yellow Calceolarias mixed together.

The Geranium bed must be raised in the centre, so as to permit the scarlet colours to display themselves to advantage over the surrounding Yew. The outer bands must be made to slope gradually from the centre to the outside, where the white Ivy-leaved Geranium should just be level with the rim of Box.

It may be mentioned that in the management of a bed of this description some skill will be required to bring out the effect boldly. The plants ought to be all old blooming plants, and the whites should not be turned out of their pots; but merely plunged deeply. When “well done” it is easy to perceive that a bed of this sort would be

extremely handsome. . We may add that for the plan and arrangement we are indebted to Mr. Foggo, gardener to Sir Wm. Middleton, Bart., at Shrubland Park, near Ipswich.



ROYAL BOTANIC SOCIETY'S EXHIBITION.

JUNE 18.—This, taken altogether, was the best and most complete exhibition of the season; every class of productions, whether plants, cut flowers, or fruit, were shown in the finest order and in great

abundance as well; in fact, finer fruit we have never seen; and the weather being all that could be desired, brought a large and fashionable company together.

Of novelties there were but few, excepting the large bank of Seedling Pelargoniums and other florists' flowers, which contained some first-class productions. Mr. Glendinning sent the new plants he has so often produced this season. Messrs. Veitch sent a few new plants, including *Theophrasta latifolia*, a plant with immense heads of flower. The finest new Pelargoniums were Etna, Mazeppa, Richard Benyon, Minnie, Rosy Gem, Rose Celestial, Empress Eugenie, and Queen of Beauties. In Fancy Pelargoniums the best were Acme, Mrs. Turner, Indispensable, Queen of Lilacs, Clara Novello, Princess Royal, Alice, and Decision. Those of the large flowering sorts that were good, though a season older than those enumerated above, were King of Scarlets, Spotted Gem, Matilda, Hermione, Symmetry, Flora, Saracen, Agnes, Bianca, and Pallas. In cut Roses many of the newer kinds were shown in fine order; Lord Raglan was particularly conspicuous. Mr. Francis sent a collection of dwarf Roses in small pots, worked on Manetti stocks; they were very freely bloomed as well as in vigorous health, some having from six to twelve blooms and buds on a plant. The large plants of Roses in pots were also very fine, particularly those from Messrs. Lane. The Fuchsias from Mr. Bray and Mr. Hutt were very good. A *Pimelea decussata* shown by Mr. Williams, gardener to Miss Traill, was a perfect specimen. Mr. Colyer's *Ixora alba*, *I. saliciflora*, *Erica Cavendishii*, and *Azaleas magniflora* and *Cavendishii*, were exceedingly fine. A large specimen of *Aphelaxis humilis rosea*, exhibited by Mr. Dods, gardener to Sir J. Cathcart, was the subject of much admiration. There was a pretty group of variegated plants and Gloxinias from Messrs. E. G. Henderson & Son; and some fine grown Pansies from Messrs. Downie & Laird, of Edinburgh. In collections, the leading prizes went generally to the old exhibitors—those usually successful—as will be seen by the awards given in another page. It is but bare justice to say that these collections, taken together, never made a better exhibition.

JULY 1.—This meeting, coming so soon after the June show, produced but little that we had not before seen. It was a good one, fine fruit being in abundance. The rain came down in torrents during the greater part of the afternoon, the exhibition was therefore seen but by a few only. The cut Roses by Messrs. Paul & Son were exceedingly fine. Cut Roses in general were good, and in large numbers; the following were shown fine:—Prince Leon, Lord Raglan, Jules Margottin, Mrs. Rivers, Madame Vidot, William Griffiths, Victor Trouilliard, General Jacqueminot, Gloire de Dijon, Coupe d'Hebe, Madame Villermoriz, and Viscomtesse Decazes. The 24 Pinks shown by Mr. C. Turner were as large as Picotees are usually seen, and beautifully laced. The Seedling Pinks Miss Nightingale, Miss Eaton, and John Ball, sent by Dr. Maclean, of Colchester, were very fine. Mr. Parsons, of Danesbury Park, sent two very handsome hybrid Achimenes, *A. meteor* being the best, and a very fine flower. There were some pretty new variegated Geraniums staged, severally named Julia,

Picturata, Perfection, Shottesham Pet, Bijou, and Lizzie. Fuchsias were fine and in good numbers, but consisting of the old kinds only. Mr. Smith, of Hornsey, sent a seedling white corolla'd variety, called Princess of Prussia; this appeared to possess a better habit than those already grown of this class. The plants were exceedingly fresh for a July exhibition, and the large tent was well filled. The awards will be found in another page.

REVIEWS.

A Catalogue of Stove, Greenhouse and Hardy Plants, cultivated and sold by ROBERT PARKER, Paradise Nursery, Holloway, London.

MR. PARKER'S collection is rich in Orchids, Ferns, Lycopods, and fine foliaged plants, of which Mr. Parker is an admirable exhibitor. The list contains also the usual amount of soft-wooded plants, Roses, Conifers, &c. Judging from what we have examined of his living specimens, the plants appear correctly named.

A Natural History of the Vegetable Kingdom, arranged according to the Natural System of Decandolle, with engravings illustrative of the typical species of each Family. By ROBERT HOGG, Vice President of the Pomological Society; author of "British Pomology;" and co-Editor of the "Cottage Gardener." In weekly numbers, 2d.; and monthly parts, 9d. and 11d. Kent & Co., London. Parts I. and II.

WE have received parts I. and II. of the above work now publishing, which is a remarkably cheap production, and will do much towards making the study of plants—their history, properties, and uses—popular, as its price brings it within the reach of the humblest student for botanical or physiological knowledge, and in this respect it will be a boon to those whose means do not allow them to consult more expensive authors. We can recommend this work to young men of all classes connected with gardening or agriculture, and it will form, when complete, a valuable book for country schools.

List of Plants, Cultivated and Sold by E. G. HENDERSON & SON, Nurserymen, Seedsmen, and Florists, Wellington-road, St. John's Wood. Spring, 1857.

WE have had to speak in commendatory terms of the catalogues of this firm, in former volumes. That for the present year appears to have been as carefully got up as its predecessors; inferior varieties of plants have been weeded out, and only the best and most popular retained; and to show the immense number of plants now cultivated, these form 96 pages of matter. The new plants are put in large type, which enables us at a glance to distinguish the additions made to former lists. There are besides select lists of new Plants and Fruits. Altogether a valuable reference for gardeners and amateurs.

CALENDAR FOR THE MONTH.

Auriculas.—After lying dry and comparatively dormant for the last two months, these plants must now claim attention. To ensure a good growth and bloom next spring, the plants will now require to be shaken out of the old soil, and repotted, using moderately rich, but well-sweetened soil. The size of the pot to be used will depend on the strength of the plant, but by no means over pot. For some little time after repotting, keep the plants rather close in a frame or pit; give air by degrees, and in proportion as they draw root, until they can be entirely exposed to the air, excepting to heavy rains, to which they should never be subjected, if they can possibly be screened from it.

Azaleas.—Encourage the growth of young plants, by shading in bright hot weather, and by keeping them moist. All specimens out of doors will require constant attention, if the weather continues as hot as it has been the past month. As these will now be done growing, they should not have any more water given them than is absolutely necessary to keep them in a healthy state.

Carnations and Picotees.—The bloom this season having been unusually early, layering can be completed in good time, a point of great advantage. This having been done, there will be but little besides to do this month, but carefully attending to the watering.

Camellias.—This is the proper time to thin the flower buds; this is a point of much consequence, and one which is very frequently little attended to. One bud to each shoot is sufficient. Finish shifting any not done last month. Syringe freely every evening in hot weather.

Cinerarias.—Some care will be necessary during the hot weather. The Cineraria prefers a cool shady situation; yet if grown too much in the dark there is the danger of mildew; sulphur, should this appear. The first-struck cuttings will now require re-potting, as also the first-sown seedlings for early bloom. Continue to put in cuttings.

Conservatory and Show-house.—During hot bright weather these should be shaded, otherwise plants in flower will soon lose their beauty. The borders will now need liberal supplies of water, and plants not in flower should be syringed every evening. Climbers of all kinds will require attention in tying and training. See directions in former calendars.

Dahlias.—Go over the plants regularly twice a week, to remove all superfluous small shoots and buds, but this must be done with care and judgment, only cutting away a little at a time, leaving large varieties full of wood for a time. Water freely during dry weather, and in addition give the plants a good sprinkling over-head every evening, after the sun has left them. Secure the side shoots by tying them to stakes, in doing which draw them away from the centre, to prevent weakness by overcrowding of the shoots. Earwigs should be got under before the bloom commences, to prevent the annoyance they occasion by disfiguring the finest blooms.

Flower Garden.—We have not seen flower gardens in general so gay and beautiful for some years as they are this, which is principally owing to the fine weather we have had lately. Every pains should be

bestowed on them, to keep them as long as possible in their present grandeur. Pinch off dead leaves and flowers; thin shoots where crowded and peg down where thin. Plants in vases will need liberal supplies of water. Put in cuttings of all the "bedding stuff" as soon as they can be taken off, without injuring the effect of the beds. Scarlet Geraniums, if put in early in the month, will strike well in the open border. Anagallis, Petunias, Verbenas, &c. &c., will strike best in frames or under glasses. Pentstemons, Snapdragons, and Calceolarias will strike well under glasses behind a north wall. Plant out Wall-flowers and Brompton Stocks. Sow hardy Annuals. Gather seeds of choice flowers.

Fruit (hardy).—The late fine hot weather has been very favourable to fruit trees. Should the weather be fine during August and September, we shall have well-ripened wood and well-formed buds on all trees that have been properly attended to in the disbudding and thinning of the shoots, and as a natural consequence a good prospect of a crop of fruit next year. Look carefully over all trees and remove every shoot not absolutely wanted for next year. Nail in Peaches and Nectarines and stop all strong shoots; nail in Apricots. Stop and remove the foreright shoots of Pears, Plums, and Apples. Cut away all weak and superfluous shoots of the current year from Raspberries, leaving only sufficient of the strongest for next year's bearing; these should be securely fastened to stakes. Cut away the canes that have done bearing. Cut off all runners and dead leaves from Strawberry plants; clean and stir the ground between the rows, so that the plants may mature well their crowns before the winter. Make new plantations without delay. Protect fruit from birds and insects, and gather before they get too ripe. Net Morello Cherries, Currants, Gooseberries, &c. In hot weather Currants and Gooseberries will keep better under mats than nets. Wasps, flies, and earwigs are great pests to wall fruit; destroy and trap them by every possible means.

Greenhouse (hard-wooded).—The greatest attention should be paid to the watering of all greenhouse plants, while such hot, drying weather prevails as we have experienced of late. The more delicate kinds, such as Boronias, Leschenaultias, &c., should always be kept in the houses and shaded in very hot weather. The wood of the strong-growing kinds, such as Eutaxias, Diosmas, Epacrises, Pimeleas, &c., out of doors, will have their wood well ripened. The young stock in pits will require constant attention; shift any that may require it; turn them round occasionally; and stop and train them at every opportunity. *Soft-wooded plants.*—These will require very liberal supplies of water, and should be shaded in very hot weather, to prolong their flowering.

Kitchen Garden.—Persevere unceasingly in the destruction of weeds, and in the hoeing and stirring of the soil between the crops. Give Savoys, Broccoli, Brussels Sprouts, Celery, &c., frequent and liberal supplies of water. Earth up Savoys, Broccoli, &c. Attend to the earthing up of the early crops of Celery. Plant out Endive and Lettuces. Sow large breadths of Spinach and Turnips at the beginning of the month, to stand the winter, also Onions; the Tripoli

and Strasburgh are the best for this purpose. Sow Lettuces and Radishes; the Bath Cos and Hammersmith Hardy Green are the best Lettuces for autumn sowing, to stand the winter. Sow Cabbages of sorts the beginning of the month; sow Cauliflowers twice during the month, about the 10th and the 20th. Take up Shallots and Garlic and dry and store away. Cut and dry herbs.

Melons.—Withhold water from Melons that are ripening and give them plenty of air and warmth. Water freely growing plants. Before closing the frames in the afternoon, sprinkle those plants upon which there is sufficient fruit set; it will refresh them and assist to keep the red spider under. Keep plants for late crops thin of shoots.

Orchard-house.—Syringing must be discontinued when the fruit begins to ripen. No more water should be given than is absolutely necessary to keep the trees from suffering. All the air possible should be given day and night. Any shoots not absolutely wanted should be removed, and all strong ones should have the ends pinched off.

Pansies.—Choose a cool showery time for transplanting these. They are not easily managed during the hot weather we get in the south.

Pelargoniums.—Sow seed as soon as sufficiently ripe. Repot cuttings as soon as struck, using good rich soil; grow them quite hardy. The Pelargoniums will stand any amount of light, either striking or afterwards; we seldom shade.

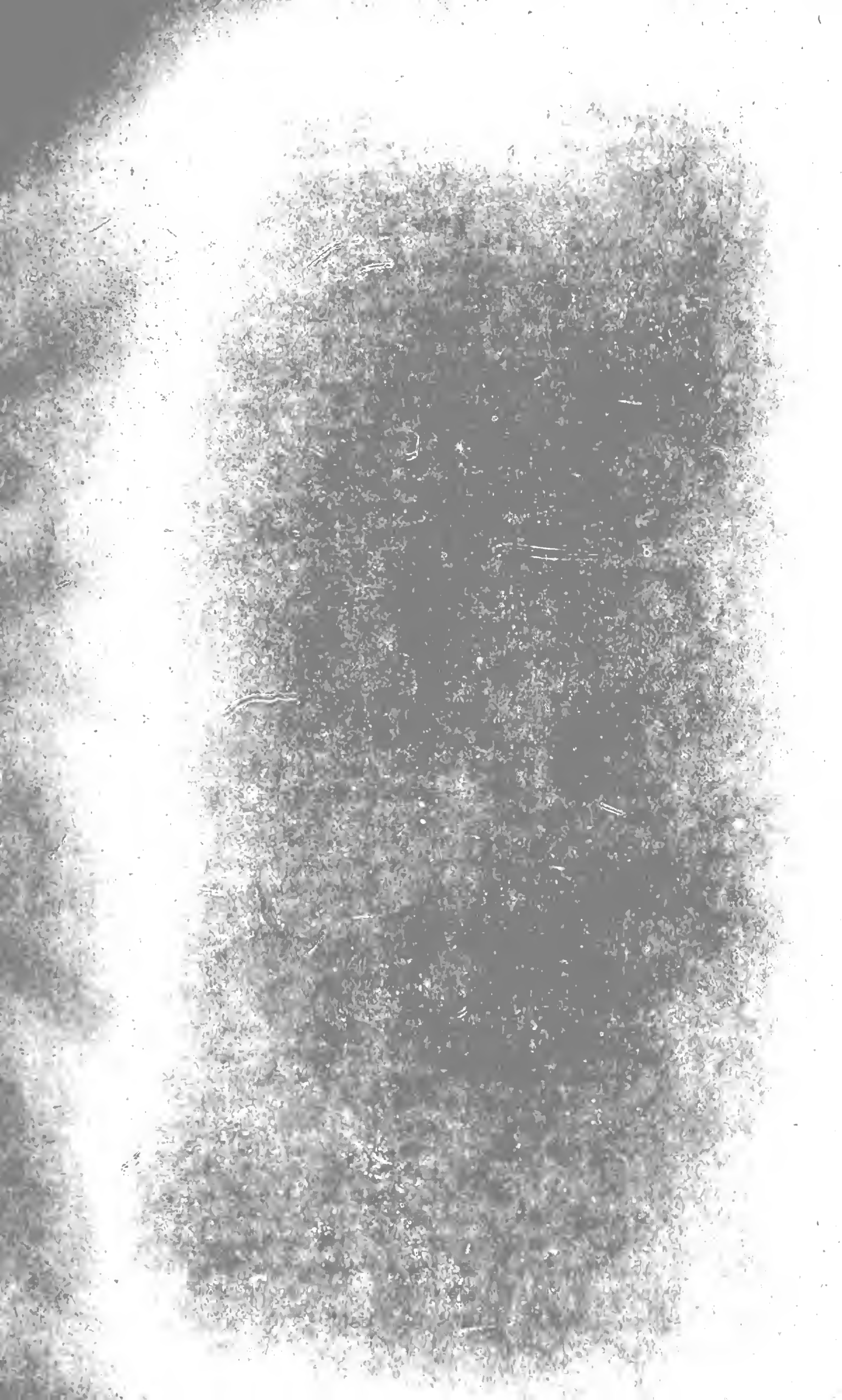
Peach-forcing.—The lights should all be taken off for three or four weeks, in order that the hot, drying winds of August may pass freely among the trees, and by this means the wood will be well ripened.

Pinery.—Little or no water should be given to plants that are ripening their fruit, but those that are swelling their fruit should have liberal supplies and occasionally a dose of liquid manure. Plants that have “shown fruit” should be put in a house by themselves, where the atmosphere can be kept rather dry while they are in flower. Shift into their fruiting pots all plants that require it; shift the young stock when it needs doing; they generally grow fast at this season of the year, when they have plenty of young roots, and have a nice moist warm atmosphere, and a good steady bottom heat. Give plenty of air during the month.

Pinks.—As soon as sufficiently rooted, plant them out into the beds that have been prepared for them, which should have been well trenched, and made rich with rotten manure. Pinks winter better, and produce larger flowers, by early planting. The remainder of the stock should be planted out in spare beds, much nearer together. Look well after the grubs, so destructive at this season to the young plants.

Stove.—The shoots of plants intended for winter flowering should not be stopped after the beginning of the month. The plants should now be neatly tied and be placed in favourable situations. Water freely all strong-growing plants. Give abundance of air. Syringe plants not in flower, and sprinkle the pathways well with water.

Strawberry Plants, for forcing.—The potting of these should be finished without any delay. The great point to be attained is to get well-formed crowns, before the short days come on. Give them gentle watering with a rose pot in the evening, when the weather is dry and hot.





1 Miss Eaton / Maclean.
2 Miss Nightingale / Maclean.

PINKS.

(PLATE 130.)

NOTWITHSTANDING the many beautiful new and showy productions we now have to select from, to illustrate our pages with, the Pink, old as it is, will always remain a favourite, and deserves our attention. What is more pretty—and what can compare with it in fragrance?—grown with that care which none but the exhibitor can afford to bestow on it, it is indeed a charming flower; it is, however, pretty under all circumstances.

The florist is greatly indebted to Dr. Maclean, of Colchester, for many of the finest varieties we have in cultivation, two of which, Miss Nightingale and Miss Eaton, we figure in our present number. Dr. Maclean has long been a careful and most successful hybridiser, some of his late productions having petals equal in size and substance to a Picotee, with the edging as well defined. Of old kinds, produced by that gentleman, we may enumerate the following:—Criterion, New Criterion, Mrs. Maclean, Narboro' Buck, and Colchester Buck; those of more recent date are, Purity, Napoleon, John Ball, Gem, and Eugenie, to which must be added the two represented by our plate.

The Pink is hardy, and easily cultivated—yet to ensure large and fine blooms, cuttings should be struck in June, and, the beds having been well prepared by trenching, and mixing in a liberal supply of rotten manure, with pure loam, plant out for blooming, as soon as the young plants are sufficiently rooted from the piping bed; this plan is not generally adopted, but it is by far the best; managed in this way we find them winter better and produce larger flowers, more correctly and evenly laced. We attribute this to the roots penetrating deeper into the soil, thereby being less likely to be injured, either by frost in winter or dry weather in spring.

For more detailed particulars respecting the culture of this useful and really pretty flower, we beg to refer our readers to our monthly calendar.

 CHRONICLES OF A SMALL GARDEN.—No. II.

IF any one took the trouble to read the paper under this title in the last number, they very probably asked themselves, How can a man with small means be able to have new flowers? In answer to this very natural question, I may say that in one respect I have a very great advantage over many of my brother florists, viz., that of living in the near neighbourhood of one of the most successful florists in the kingdom, and who possesses in an eminent degree that, without which no man is a true lover of flowers,—a liberal spirit. To him I am indebted

for a very large portion of the new things that I possess ; and I am sure if all who grow equally largely were equally generous there would be a much wider taste for good flowers exhibited. I have met florists with a very different spirit, who would give wrong names to plants in order to mislead, who would never give away a cutting that was worth anything, and whose greatest pride it seemed to be to have something which nobody else had. Away with such! they don't belong to the craft, and bring discredit on that which Lord Bacon says is "the purest of human pleasures," and prove only how men can pollute the purest and best of earthly things. But even had I not this advantage, there are a few rules which attendance to would enable one so desirous of getting on tolerably well in new things, and I may then be permitted to put this question before us,—*How to stock a small garden?*

I. *Never buy a plant that you have not seen in flower.*

Now, in saying this, I do not mean to bring any slur upon those who sell, but there are many reasons which make the opinion of others unsuitable for one's own guidance. In the case of seedlings it is very difficult (as I should think every one who has ever raised a seedling will acknowledge) to determine that it is good for nothing. "Our geese are pretty sure to be swans," and one does not like to condemn one's own children. It is like a mother over an ugly child ; she looks at it day by day ; each day the ugliness seems to wear off, until at last she is fully persuaded it is the "flower of the flock." "Come here," you say to a friend, "what do you think of that Pansy ; fine bold eye, hasn't it?" "Ye-e-s," drawls out your friend. "Don't you really think so, then?" "Oh, yes! bold eye enough ; but don't you think that lower petal rather too small?" "Oh, dear, no!" is your indignant reply, a slight qualm at the same time coming over you. Another comes in, and pronounces it "capital;" you think him a much better judge, and wonder what No. 1 could have been thinking of:—you always thought him a bit of a muff. You send it off to the editor of some journal, one that you know to be pretty lenient, and you get a flattering notice. You now venture a step further, and submit it to Mr. Turner's critical eye, and read on the cover of the *Florist*:—"Pansy. M. D. Good for nothing ; lower petal too small." No. 1 was right, then, after all. You are horribly irate, as irate as the mother would be that her ugly baby didn't get a prize at the baby show for beauty. But the case may be different ; and although your Pansy be defective some one will have it with its fault, and a flower no way in advance of others already out is thrown on the market. It may have, too, a better habit, as a seedling, and this may be a reason for a nurseryman taking it off your hands. Again, some persons only look at a flower for exhibition purposes ; they want, as in the case of Verbenas or Chrysanthemums, to show cut flowers. and one, admirable for such purposes, is highly praised ; you buy it ; but, alas ! it won't do for you. Take, *e. g.*, King of Sardinia Verbena ; any person who wants to show cut blooms will probably grow it, as it supplies him with a colour he is short of, and admirable for contrast ; but I want it for display, and am grievously disappointed to find it a weak, weedy thing, sure to spoil a bed whenever it is put in, and had I paid 5s. for it,

should perhaps have got up to boiling point on the subject. Again, tastes vary: what pleases my neighbour will not please me; he wants large flowers—I, neat ones; he is fond of sombre colours, I of bright ones, and so on; therefore, taking all things into account, never buy anything you have not seen. — Even with this rule, one may be *done*. I told a story of a friend last month—let me tell one against myself now. Some three years ago I was at Lincoln, and going into a nurseryman's there, I saw in his greenhouse some capital Roses in pots, and among them two of Cloth of Gold, about two feet high, with a fine cluster of bloom. Oh! thought I to myself, here is the grand secret, here is the philosopher's stone. I looked at it; "What is this budded on?" "The Celine." "Does it flower freely on it, then?" "Oh, we do several every year, and never miss." And so, my prize carefully packed in brown paper, off I marched to the railway. With what jealous care I guarded it! How pleased I was when fellow-travellers admired it, those only can tell who have had Cloth of Gold in bloom. I reached home, and detailing my travels to my Chrysanthemum friend, of course the grand feat of Cloth of Gold in bloom was mentioned. With what pride I stepped back and said, "There, look at that!" I believe his mouth perceptibly watered at the sight. But alas! "a haughty spirit goeth before a fall." My Rose never bloomed afterwards. I turned it out of the pot; it grew for a while, and then died. I then recollected I had never asked how it *continued* blooming, and thus raised up a grand laugh against myself; for whenever I say anything about Mr. S.'s visit, I am met with the reply, "What about the Lincoln Rose?"

II. *Never grow rubbish.*

This may seem an unnecessary thing to mention, but were it not that I have had experience of the necessity of keeping to it I would not write it. There are various ways in which one gets indifferent things into their garden. You may buy something which turns out good for nothing, or you get something much in advance of what you have. You do not like to throw four or five shillings on the dungheap, or acknowledge you have been taken in, and so you keep it on. Again, friends knowing your partiality for flowers, offers you this or that; politeness forbids a refusal, but as one's character gets established, you get beyond the reach of this, and they say, "Oh, it's no use offering *you* anything." I believe I have got to this stage, but then comes a worse tormentor. "Oh," says some very kind lady friend, "I know how fond you are of flowers; a brother (or cousin) of mine has just come from the Cape, or Egypt, or the West Indies, and has brought home some seeds;—I will send you some." You cannot but thank your fair friend, though at the same time you wish her brother or cousin (very suspicious people these latter) had had less of a botanical taste, for you know from sad experience that these seeds are Acacias or Ipomœas, or some other well-known thing, you cannot possibly grow. All you have to hope for is that they will not germinate, or if they do that some evil may befall the darlings. If by any means you find yourself possessing which is really not worth growing you must be courageous enough to cast it away; a good thing only takes up as much room as a bad one. *Never grow rubbish.*

III. *Endeavour to get some friends to share with you in your orders.*—I want, for instance, a dozen new Chrysanthemums, or half a dozen new Roses. I can't possibly afford them all, but if two friends will agree to order them with me we can readily exchange cuttings of the former—which grow like weeds,—or buds of the latter, so that in the one case, in the course of the same season, I and my friends have each the set of twelve, and in the other, the following season we each have the Roses. So far from this being injurious to nurserymen, I believe it is favourable to them, for none of us could separately go to the expense of having a parcel of four Chrysanthemums and two Roses from Slough or Sawbridgeworth, though we are glad to share the expense between us.

There is, again, the advantage in attending to these things, and having really good things, that you can generally find people willing to exchange, as, for instance, this year one nurseryman is glad to have some of my Carnations, another Verbenas, and another bulbs. This all helps me out in adding new things to my stock.

I have one word to say in conclusion in this part. If by any chance you do happen to have a bad thing, destroy it; do not give it away. Believing that a taste for flowers is likely to prevent a taste for sinful pleasures, I feel we ought to do everything to encourage it amongst one's neighbours. Give away freely, and give the best you can spare; and though your neighbour be a poor one, do not allow yourself to say, "Oh, anything will do for him." I am far from thinking that any refinement of taste will prevent men's sinning, but still I think there is a beneficial quiet influence in flowers which may well do service. Unlike sculpture or painting they are God's work, not man's, and may sometimes perhaps lead the heart of him who looks on them to think of Him who made them and him.

I had intended to have said something on Verbenas, new and old, this month, but must postpone it, and see what will be my calendar of operations for September, and let me say—I use this advisedly—I do not wish to say that it is what ought to be done, but what I am doing, and what I generally find succeeds well enough for me.

Greenhouse, Frames, &c.—It will soon be time to overhaul these. Paint where necessary; repair glass; and thoroughly cleanse before putting in winter stock.

Auriculas.—Keep clear of weeds, and protect from autumnal rains. These very beautiful flowers suffer more from wet than anything else.

Carnations and Picotees.—The layers will soon be rooted. I take them off, and pot either singly or two in a pot in the same stuff in which they have been grown, with the addition of a little road grit.

Pansies.—As they root pot also in small pots, and protect from very heavy rains; still put in cuttings.

Scarlet Geraniums, and General Bedding Stock.—As these become rooted it will be desirable to pot them in thumbs, and harden them for the winter.

Roses.—Buds will want looking to, and the ties loosened if the buds be swelling.

I find it necessary to under-pot rather than otherwise, in

order to give room during the winter. Early in spring, when one can trust Scarlet Geraniums, &c., in frames, I then can repot into larger pots. This, I dare say, is not orthodox, but it suits my purpose. Take care of the autumn rains; they are decidedly injurious to most potted plants. *Au revoir.*

Deal, August 18, 1857.

D.

OLD HUMPHREY.

READER, have you ever enjoyed the privilege of perusing the writings of "Old Humphrey?" Whether your answer be "yes" or "no," you may perhaps feel inclined to ask in return, "What has Old Humphrey to do with flowers?" Grant me a little patience, and I think I shall be able to show at least a remote connection, and one probably bearing on your interests and pleasures. Let me confess at the outset that I cultivate flowers for profit, but not for profit only, for, like most lovers of flowers, I have my pet plants, which serve to amuse my leisure hours, and conduce to other than pecuniary gain. In my early youth I was, through the kindness of friends, made acquainted with the works of "Old Humphrey," and many are the solitary hours I can look back upon as pleasantly and profitably spent in their perusal. Manly simplicity of style, earnestness of purpose, cheerfulness, buoyancy of thought, and confidence in things unseen, constitute the charm of his many writings. Of the various subjects on which he wrote, let us hear what he had to say on flowers.

"ON FLOWERS.

"How many gratifications do we daily enjoy! and how disproportionate is our gratitude to the Father of Mercies, when compared with the number and magnitude of his favours! The skies above our heads, and the earth beneath our feet, are beautifully adorned by heavenly hands! The balmy gale breathes health around us; the brook and the crystal spring pour forth their refreshing and invigorating streams. By day the glorious sun gilds the creation with his beams, and by night the silvery moon and the glittering stars shed their grateful lustre.

"There are many things which give pleasure to age but impart no enjoyment to youth; and others, which afford a gratification to the young, which the aged cannot share. The rich can procure pleasures which the poor cannot obtain, and the poor man enjoys advantages that the rich cannot purchase; but some things appear equally to delight the old and the young, the rich and the poor: and among these may be mentioned flowers. Yes, whether flowers flourish in the garden or bloom in the greenhouse, whether they are scattered over the pathway, sprinkled on the verdant banks, or widely strewn over the mountains and the valleys, they never fail to please; they impregnate the air with their sweetness, and delight the eye with their exquisite beauty.

"Think of the flowers that you have gathered, smelt, and gazed on, and then ask yourself if you have been sufficiently grateful for the pleasures they have afforded you.

"Sweet it is to enter the greenhouse filled with elegant blossoms, where

the night-blowing Cereus, the scarlet Geranium, the Fuchsia, the Lobelia, the Camellia, the Arum, and the China Rose, are mingled with a thousand other beautiful flowers. And sweeter still to walk in the garden, where, in their appropriate seasons, we may see the lovely Rose, the gaudy Tulip, the stately Hollyhock, the magnificent Tiger Lily, the gorgeous Pæony, the Anemones, Dahlias, Carnations, Rockets, Stocks, and Marigolds.

“And still sweeter than all to roam at liberty in the sunlit fields and sequestered dells, where the modest Primrose, the golden Buttercup, the splendid Foxglove, the dancing Daffodil, and the sweet-scented Violet, are profusely scattered! Did you ever lie at your length at mid-day on the side of the broad-breasted mountain, decked with Heath flower, entranced with silent ecstasy? or sit on a shady bank, gazing on the earliest Primrose of the year with admiring wonder? or bend in a retired nook, with intensity of interest, over the blue minute flower of the Forget-me-not? If you have not done these things you know not the pleasure, the joy, the delight, that may be excited by a flower.

“Were the flowers of the world to be taken away they would leave a blank in the creation. Imagination cannot suggest a substitute for them. Be grateful for the gift of flowers.

“Look at the stateliest room in the stateliest mansion; see it decorated with carvings and gilding, with paintings and sculpture, with china vases, ornaments, and costly drapery; fair though they be, the flowers in the light wicker basket on the stand are fairer still.

“Though all around be rich and rare,
The flowers are fairest of the fair;
And voiceless, as they are, impart
Sweet music to the eye and heart.

“The blushing maiden, elegantly dressed, who trips along yonder, with a light heart and a sparkling eye, steals ever and anon a glance at the Moss Rose-bud blooming at her breast. We will not inquire who gathered and placed it there, though, while his hand was employed, his heart breathed the prayer that he never might plant any thorn in her bosom. She could tell you if she would; nay, look at her happy face, and you may know without her telling you, how much of calm delight and peaceful pleasure may be crowded into the petals of a flower.

“The poor aged widow in the almshouse must also have her flower. Old, and poor, and lonely as she is, she has not forgotten the time when she had a garden of her own; and now she sticks a bunch of Gilliflowers in her broken blue jug, and, placing it in the window, looks upon it with satisfaction. And why should she not? May her flowers bloom, and her hopes of Heaven brighten.

“The aged labourer, too, who held the plough in his boyhood, and who now has near fourscore years on his forehead, when his blue Sunday coat, with the broad skirts and big buttons, is taken out of the oaken coffer, cannot wear it in peace to the house of God unless it has a Sweet William or Pink in the button-hole.”

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How simple! how luminous! how truthful! how practical! Are not words like these, dropping from the lips of a good and wise man, worthy of being treasured up? Do they not establish—yea, ennoble—a pursuit? Here is a man of undoubted goodness and talent attached to those things which engage our affections, and whether we cultivate for profit or pleasure, do we not derive new impulses from the halo of brilliancy and beauty with which he surrounds them?

On a recent visit to Hastings I determined to make a pilgrimage to Old Humphrey's tomb. It was a calm summer's evening, the sky above was cloudless, scarcely a ripple moved upon the sea; the sun was slowly setting in a flood of glory behind the western hill, as I ascended the steep steps and acclivity of All Saint's churchyard. Arrived at the summit, a humble stone, erected by the committee of the Religious Tract Society, marks the spot where peacefully repose his perishable remains. On it are engraved these words:—

IN HIS WRITINGS
HE SOUGHT THE HONOUR OF GOD
AND THE HIGHEST HAPPINESS
OF MANKIND.

No body-stone presses on his dust; the Millefoil spreads its beautiful green leaves over the ground, and the luxuriant Grass waves silently to and fro beneath the long shadows of the majestic Elms through which the old church peers grey and mistily. Before and behind rise the east and west hills, clothed with Furze, and Brake, and Bramble; to the right extends a deep valley, the hill-sides dotted with houses and trees; to the left opens the boundless sea, murmuring in constant cadence a sweet but solemn requiem. Beautiful spot! how calm, how picturesque, how lovely, how completely in harmony with his character and works. As I stood transfixed by the beauty of the prospect, many were the visitors to this old church and church-yard, and few departed without pausing and saying a kind word over the tomb of George Mogridge, better known as "Old Humphrey."

W. P.

A VISIT TO NINETY THOUSANDS OF ROSES, AND HOME EXPERIENCE.

As you were so kind as to insert an article in your June number addressed by me to my fellow-juveniles in the Rosery, and as I have been thanked by a large Rose-grower, I feel encouraged to give the result of a visit to Mr. Tiley's gardens at Bath, to review his Roses in full bloom, on the 23rd of June, on his own invitation. His invite was short and simple: "I never had my Roses in greater beauty: come, and form your own opinion." I set off the same day, driving 28 miles to Warminster, and from thence I went to Bath by train. It was a broiling day, but I must say the review amply repaid me.

I have said he has thousands of Roses. Of these 1000 are that radiant, and beautiful, and good habited Rose, Jules Margottin. A great number were in beautiful bloom, and I may say that had no other Rose

been out I should have been satisfied. He has a large stock of Gloire de Dijon on Dog-roses, as standards, and looking stout in wood as Baron Prevost. But though finely budded, they were not in bloom. Gloire de Dijon, if not the premier Tea, is, I think, in its shape and colour, as first-rate as Devoniensis. I do little in Teas. My two pets are Viscomtesse Decazes and Elise Sauvage. From what I saw of Gloire de Dijon on a Dog-rose, I think, for out-door culture, we shall come to budding Teas on alien stocks. I have a Saffranot which does well so treated. The only really hardy Tea I know is Goubalt, which is good in form, and sweet and peculiar in scent.

The gems of what I saw in bloom at Bath were Jules Margottin, Robin Hood, Mrs. Rivers (the very shape), Caroline de Sansalles, and Madame Lamoriciere.

I bought the following varieties, and will, if you like it, report on them next year :—

Panache d'Orleans	Comte de Nanteuil
Madame Philip	Souvenir de la Reine d'Angleterre
Madame Place	Duchesse d'Orleans
Jules Margottin (2)	Triomphe de l'Exposition
Madame Fremin	Lord Raglan (2)
Lady Franklin	Reine des Fleurs
Gloire de Dijon (2)	Robin Hood (2)
Prince Leon (2)	Madame Lamoriciere
Madame Vidot	William Jesse
Louise Peyronney	Louise Odier
Triomphe d'Avranches	Madame Martel
Madame Knorr	La Ville de St. Denis
Madame Cambacères	Melanie Cornu

These were my selection. They were grown in a free, deep, loamy soil, on stone brash. I cannot hope to equal them. The soil has an effect on colour, size, and shape. With regard to Mr. Tiley, I can with confidence say that he is a good judge of, and a fond lover of, Roses. In the blooming season, you may find him from six to six in the midst of his favourites. To his selection I am indebted for my first forty Roses; and except in the case of Jules Margottin, William Griffiths, Prince Leon, and Mrs. Rivers, I do not think I have ever bettered the original lot which he first sent to me.

With regard to home experience, I have bloomed and can recommend highly the following kinds :—

HP. Blanchefleur, white, a gem.

RG. Ohl, magnificent, rich deep crimson, requires very rich soil.

B. Dupetit Thouars } vivid crimson
Paul Joseph . . . } purplish crimson } fine compact shapes.

Acidalie, white; the best perpetual white I know, but she must be treated as a pole Rose.

Malmaison, blush; likes a warm wall, and is most beautiful for in-door culture.

HYBRID PERPETUALS.

Mrs. Rivers, pale flesh, first-rate in form. I think altogether it is the best formed I know. She is most beautiful in bud with her peach envelopes.

Theocrite, pink, large and full.

Madame Jacquin, nearly of the colour of Coup d'Hebe, is a very magnificent Rose.

I grew the last two side by side on the richest part of my kitchen garden, under a wall facing the north; and it was with difficulty I could award the palm to Hebe, which I think is the handsomest Rose I have yet bloomed. She is most fit for a pole.

Bobrinsky, vivid crimson scarlet, fine form, but delicate in wood.

General Brea, rich pink, large and full, and the sweetest scented of Perpetuals.

Léon des Combats, } red, amounting to purplish crimson; both magnificent—
Madame Masson, } the first is the fullest, the second is the largest.

Paul Dupuy, rich scarlet crimson; and, I think, a very gem.

Reine des Fleurs, pink, a fine form, and different in its form from most others.

Baronne Laray, rich pink. This is a lovely Rose, and it has been more admired than any I have bloomed this year, excepting Hebe and Jacquin, which were grown in superior ground—the kitchen garden—which, take England all over, is the best Rose ground.

I shall plant a good many near my Pear-trees, under a north wall, as they come out a little later, and hold their colour for several days in such a situation; and moreover, they are richer in colour.

I have bloomed well the following Hybrid Pole Roses (summer):—Brennus, Chénédole, Paul Perras, and Celine. With regard to these Hybrid Bourbons, and Hybrid Chinas, and rampant Noisettes, I may observe, it is useless to cut their leaders short. You will get no Roses. Let the leaders, *i.e.* main shoots, grow where they like, and after they have perfected their wood they will next year throw out side branches, which will bloom transcendantly. The best of the above poles is Brennus. Chénédole, however, is very fine, and close upon it in merit. Celine is, like Chateaubriand, a profuse bloomer, and has had Roses on her ever since the 17th of June till now, the 21st of July. She is strong in wood, and though semi-double, her large clusters are grand.

In reading over my last article, I see I have not expressed exactly what I meant. I should not have said, “These five will always bloom twice with me.” It is an exception, and not a rule. Such Roses as Kean, Ohl (a very magnificent Rose, and one that has bloomed grandly this year), Paul Ricaut, and Madeleine have bloomed twice; but I think this is to be attributed to my short cropping, and cutting back early a portion of stems that would have bloomed. I have not succeeded in doing this with Hebe or Jaussens.

My plan with all my Roses is to crop lightly, water and manure well, and prune severely. I grow for succession and specimens, and not for a galaxy. The blooms I remove immediately, and place them in a tier stand in phial bottles of water, cutting back the branch not to the next eye, but to the strongest. By this means I am supplied with good Roses through the season—that is, up to the time of frosty weather or weak suns. For late development, I think the semi-double Roses are valuable.

I must now apologise, first, to Ohl, La Reine, and Madame Aimee, who have bloomed grandly in a richer soil; and, secondly, to your readers for the unreasonable length of this article.

W. F. RADCLYFFE,

Rector of Rushton, Blandford, Dorset.

P.S.—My experience up to this time is that the Géant, for beauty, habit, and quick succession, is without a rival. I have a Rose which I have not mentioned, because it is evidently wrongly tallied. It came to me as Brea. It is not that. I ordered Bedeau at the same time, which died, as I supposed: I am of opinion the tallies were misplaced. I will describe the Rose: Vigorous in habit, thornless, perfectly green

in stalk, and polished as sealing-wax; fine large polished leaf, the outside petals delicate pink, and the centre intense brilliant rosy carmine. This is the greatest beauty I have. If not Bedeau, it may be Inermis.

NOTES ON THE MONTH.

ONE of the hottest summers on record has passed away and no very great diminution of temperature has occurred thus far in August; but within this last fortnight heavy thunder-storms have swept over the country and a great depth of rain has fallen, which will prove of incalculable benefit to pastures and root crops, both of which were suffering from the heat and drought, and as the latter are every year becoming a more important feature in the rotation of farm crops, their failure entails a serious loss of stock food during winter and spring; the copious rains which have fallen of late, and which we believe have done no appreciable damage to the grain crops, will place the root crops safe for the season, but great complaints have reached us of the ravages committed by the "fly" early in the season, and Turnips have in many instances to be substituted for Swedes.

The Potato crop has been again attacked more or less intensely with the disease, which we observe does not altogether confine itself to that plant. Nothing that I have seen or heard appears to throw any light on this destructive agent likely to prove available as a preventive. In some instances I observe the tubers become decayed previous to the tops; in the greater number of cases, however, the haulm is attacked first, and occasionally will have died down with a crop of sound tubers below, merely smaller than usual, from the growth of the plant being arrested before the tubers had attained a full size. In this neighbourhood the crops this season, on dry sandy soils, appear to suffer the worst, while on heavy calcareous loams they are still growing. In the first years of the disease the highest authorities pronounced rich soils and manures to be injurious; experience, however, teaches me that on a tolerably heavy loam, enriched with manure, the best crops are obtained; on poor soils the plant seems to suffer from want of vigour, and when attacked succumbs at once and dies away, leaving a crop of very small tubers, whereas, when the plants have more vigour, they partially resist the disease and are enabled to perfect a crop of much larger tubers. As a considerable grower of this root, I am decidedly against the starving system of Potato culture.

Flower-gardens have been unusually brilliant this summer, but I notice that many are already in a state of decline, owing to the forcing weather of June and July having well nigh exhausted the blooming powers of many plants, and the late rains have thrown a number of things into luxuriant growth, which may prevent their blooming freely again for the remainder of the season. One word of advice to the amateur as regards propagation. Geraniums of all kinds should be struck in the autumn pretty early, to get their wood ripened before

winter; while Petunias, Calceolarias, Lobelias, Verbenas, and the like, make the neatest plants, and continue in bloom the longest, when struck in the spring—so that the stock to be kept over winter need not be large.

I see by a notice in the *Gardeners' Chronicle* that the shareholders of the Crystal Palace have directed an investigation into the management of their affairs, frightened, no doubt, by the new loan of £250,000 wanted to complete their works. We have not at present time to refer to the actual cost when compared with the original estimate, but proceed to notice some remarks made by the Editor relative to the "*Flower Shows*," which he considers to "exhibit a spirit of reckless speculation which could only end in loss." I am not so sure that this is a correct designation. The prizes are liberal, and they must now-a-days be liberal to ensure a fine display; and considering the expense of conveyance, and the damage done to certain tender plants, I do not consider the charge made out. But it is very easy to pick a hole in the coat of the managers, for rewarding the hard-working gardener rather liberally. Further on, the Editor of the *Chronicle*, by way of advice to the Company, says that a "parsimonious direction will not fill the Company's exchequer; the Crystal Palace is one of those grand conceptions which inevitably involve an enormous annual outlay." Just so. It is because it is *too* grand, and the Company's money has been too lavishly wasted—it is because a system of expenditure during its earlier career was carried on, which the unfortunate shareholders had no idea of, that embarrassment so soon overtook it. All we say is this: let the truth be stated—and because a necessary liberality has been shown towards our profession, do not let us call such "reckless" in the face of facts that cannot be construed into anything else.

G. F.

REVIEWS.

Trentham, and its Gardens, with 10 illustrations on wood, from Original Drawings and Photographs. London: Piper, Stephenson, & Spence; and Allbut and Daniel, Hanley.

THIS is a small shilling volume, giving the history of Trentham and its immediate neighbourhood, from the earliest times to the present; in this undertaking the author (who is one of the under-gardeners at Trentham) shows considerable research, and the history of "The Little Nunnery of Tricingham," from its foundation by the pious St. Werburgh, A.D., 680, to the completion of the now palatial edifice—Trentham Hall—by the present Duke and Duchess of Sutherland, some dozen years since, is interesting. But we confess to much disappointment, in finding only *one* chapter devoted to the gardens, which occupy so large a space in modern Trentham, and this impaired by typographical errors, quite inexcusable. Our advice to the author is, if ever "Trentham" should reach a second edition, to get some friend conversant with botanical nomenclature to revise the work for him.

Abridged List of Stove, Greenhouse, Hardy, and Ornamental Plants, Fruit-trees, &c., cultivated and sold by R. GLENDINNING, Chiswick Nursery, near London. 1857.

IN addition to a well-selected list of popular plants, Mr. Glendinning holds the very valuable stock of new things introduced by Mr. Fortune, from China; among these are *Abies Kæmpferi*, *Farfugium grande*, &c., which we have had so frequently to commend when reporting on novelties. Mr. G.'s nursery is, we observe, very rich in *Coniferæ*, of which his list contains many rare and valuable kinds, worthy the attention of collectors.

Catalogue of Plants cultivated and grown for sale by WM. CUTBUSH, Jun., Nurseryman, &c., Barnet, Herts. 1857.

A VERY careful selection is here given of stove, greenhouse, fine-foliaged, and variegated-leaved plants, &c., of which Mr. Cutbush is becoming a conspicuous exhibitor.

A Catalogue of Ornamental Plants grown for sale by C. NOBLE, Nurseryman, Bagshot. 1857.

A SKILFUL selection of hardy ornamental trees and shrubs, among which there are some rare things, particularly among American plants and flowering shrubs.

Sims' (Foot's Cray, Kent) Wholesale Price List of Ferns.

THIS list affords satisfactory evidence of the encouragement now given to Fern culture. It is, we believe, the first wholesale price list of Ferns, offering a considerable number (some eighty exotic, and forty British species and varieties) of the choicer kinds of Ferns ever published. They are offered, Mr. Sims remarks, at a comparatively low rate, in order that provincial nurserymen may keep in stock kinds more choice and select than they have hitherto had. We can state, from a recent inspection of the collection at Foot's Cray, that Mr. Sims is remarkably successful in raising Ferns from the spores: that his stock is very large, very choice, and very healthy; indeed, as to quantities, we imagine it is perfectly unique in its way. The collection as (well as Mr. Sims' general catalogue) is well worth consulting by all persons interested in the culture of this class of plants; and dealers who are not growers of Ferns may readily and safely derive supplies from such a source. We observe that the sorts are very carefully named, which, in the confusion which prevails as to the nomenclature of Ferns, is a great additional recommendation.

NATIONAL FLORICULTURAL SOCIETY.

AUG. 6.—The Rev. J. Dix in the chair. Hollyhocks were shown in great beauty, particularly by Messrs. A. Paul & Son, Mr. Chater, and Messrs. Bircham & Ward. Messrs. Paul & Son sent a collection of spikes, as well as cut blooms, including named flowers and seedlings. The large number of fifty new varieties of Hollyhocks was produced

on this occasion. Dahlias were also shown very good, by Mr. Keynes and others, and a great variety of subjects, of a miscellaneous character, was staged, the room being filled with productions of general good properties. The most remarkable Hollyhocks were Paul's Queen of the Yellows, a fine stout flower of good form, the best yellow extant, awarded a First Class Certificate; Nulli Secundus, from Mr. Chater, an excellent flower, bright pink, quite first rate, First Class Certificate; Pre-Eminent, a noble flower, colour rich rosy purple, sent by Messrs. Bircham & Ward, First Class Certificate; Crusader, from Messrs. A. Paul & Son, a flower of pleasing colour, with the finest properties, bright pink, First Class Certificate; Waterloo, likewise from Messrs. A. Paul & Son, colour dense crimson, a close fine flower of very rich colour, a telling kind in the garden, First Class Certificate; Primrose Model, from the Rev. C. Fellowes, of Shottesham, deep primrose colour, a close fine flower, First Class Certificate; Pink Perfection, from Messrs. A. Paul & Son, delicate pink, a very pleasing flower and very close, First Class Certificate; Rose Celestial, from Messrs. Bircham and Ward, beautiful blush rose, of good form, Certificate of Merit; Purity, from Mr. Chater, a pleasing white colour, and a large, noble flower, Certificate of Merit; Mrs. Chater, also from Mr. Chater, a pink flower with purple at the base, Certificate of Merit; Purple Prince, another of Mr. Chater's fine seedlings, a fine purple with crimson shade, an improvement on all of the Pourpre de Tyre class, Certificate of Merit. Of Dahlias, Certificates of Merit were awarded to Alice Downie, pure white, a promising flower, and evidently an improvement on this class; and to Favourite, a prettily striped kind, both from Mr. Keynes, of Salisbury. A Certificate of Merit was awarded to Fuchsia Prima Donna, white tube and sepals and pink corolla, a large flower, but somewhat coarse, sent by Mr. G. Smith, of Tollington Nursery, Islington; also to Achimenes, Rosea Magnifica, from Mr. Parsons, of Welwyn, of free habit and large size, rosy purple, the eye of the flower spotted with yellow. Mr. Parsons also exhibited for the second time his beautiful Achimenes Meteor, of dwarf habit, crimson scarlet flowers of large size, with yellow spotted eye, having a distinct dash of purple. This flower maintains the high character which secured it the highest award at a previous meeting. A pretty collection of seedling Antirrhinums was furnished by Mr. Kinghorn, of Richmond, some of which were of an attractive character. Mr. Wyness, of the gardens, Buckingham Palace, sent Dahlia Princess Helena, pale yellow, tipped with white, medium form and size. Of other Hollyhocks exhibited both in spikes and cut flowers, the most noticeable were Mr. and Mrs. Roake, the former pale primrose, the latter white, both very nice flowers of delicate colours, from Mr. Bragg, of Slough. Besides the flowers mentioned, as having obtained awards, Messrs. Bircham and Ward also sent Mazeppa, buff yellow; Symmetry, salmon pink; Evening Star, yellowish buff; Ne Plus Ultra, mottled lilac; Grandissima, salmon buff; Grand Sultan, lilac mottled; Flora M'Donald, yellow tinted with sulphur; and Fearless, rose. The collection of Messrs. A. Paul & Son, comprised, besides those already described, Golden Drop, buff; Gloria Mundi, yellow; Lady Willoughby d'Eresby, creamy white;

Lady Franklin, rosy pink; Goldfinder, pale yellow; Lady Tarleton, blush; Princess Royal, mottled; Celestial, blush; Maid of Athens, mottled; and Purple Defiance, deep purple. Mr. C. Turner, of Slough, sent Figaro, a mottled flower, purple at the base, tinted with white, an improvement on this class; and Niobe, pink, no improvement on those of similar character. Mr. Hooper, of Bath, also sent several seedlings, they were, however, but second-rate. In addition to Mr. Chater's successful flowers, his collection also comprised Vesper Bell, a mottled flower of lovely character, white with purple base; Excelsior, bright rosy scarlet; Royal White; Unique Improved, pink; Loveliness, pale pink; Flora, blush; Amaranthus, rosy purple; Felicitas, pink; Fanny, blush; Purple King, dark crimson; Iris, mottled; Seedling Primrose, pale yellow; and Seedling Lilac, rosy lilac. Mr. Watson, of Hadley, sent double flowering Petunias, Magna, rosy lilac; and Alpha, pale lilac; these were very double. A collection of Balsams was exhibited by Messrs. F. & A. Smith, of Dulwich, in excellent variety and well grown. From Messrs. Henderson & Co. came a miscellaneous collection of plants, including some well-grown specimens of *Lisianthus Russellianus*, *Eucharis amazonica*, several specimens of *Fuchsias*, &c. The last-named class included several of the new varieties sent out during the spring of this year.

AUG. 20.—Hollyhocks and Dahlias constituted the principal features of this meeting. Noble spikes were produced of the former. Messrs. Bircham & Ward staged 12 seedling specimens, and of more than average merit; they were *Arethusa*, dull reddish purple or maroon at the base with creamy white edges; *Rosa Bonheur*, buff tinged with pink, with salmon pink, rather large guard petals; a most pleasing and novel combination of colours. The foregoing received First Class Certificates. *Inimitable*, lilac peach with silvery edges; *Cloth of Gold*, bright buff tinted yellow, novel and striking; these were rewarded with Certificates of Merit; *Exquisite*, peach and blush marbled, purple base; this had a Label of Commendation; Mrs. Bircham, marbled lilac purple, fine full spike, flowers scarcely well elevated nor over full, yet a noble variety; *Gloire de Dijon*, pale buff; *Amazon*, purplish rose; *Cossack*, maroon crimson; *Cleopatra*, pale sulphur; *Hebe*, shaded salmon, very full; *Prince Leon*, purplish crimson; these were highly meritorious. Mr. Perry, Sawbridgeworth, sent a single unnamed flower by Mr. T. Rivers, colour pale sulphur, of medium size. Of Dahlias, Mr. T. Barnes, Stowmarket, was the principal contributor; his flower named *Elizabeth* will undoubtedly become very popular; added to full size, it has a thoroughly new shade of colour—lively rose pink—both pleasing and cheerful; florets smooth, cupped, and tolerably even, deep, and very double, but with a somewhat low centre; this deservedly received a first class certificate. *Rosy Morn*, reddish scarlet, slightly tipped with lilac grey; the tip too indistinct for a telling fancy; florets bold, smooth, and expanded. *Safranot*, golden tinted buff, smooth and well built, florets a trifle long; certificates of merit were awarded to these two. A tricolor fancy named *Ellen* received a label of commendation; yellow, red, and lilac; full and large. Mr. Barnes's other flower was *Delicata*, remarkable for its similarity to *Rachel Rawlings*. Mr.

Wheeler, of Warminster, contributed a collection ; by far the best was Masterpiece, a pretty model, but too small ; yellow, disposed to be tinted. Mr. Rawlings, of Bethnal Green, staged four highly promising flowers, which needed further development. Mr. Pope and Mr. Allen staged flowers of but ordinary merit. Collections of named Dahlias and Verbenas were contributed by Mr. T. Barnes, Mr. Sladden, Mr. Hall, and Mr. Matthews. Three pots of Japan Lilies, finely grown and well bloomed, were also sent by Mr. Matthews, of the Clapham Rise Nursery.

THE PINE APPLE.

PINES are no longer the aristocratic associates of turtle and venison. Free-trade has sadly lowered their prestige as the "prince of fruits ;" and what used to set people wondering twenty years ago, may just now be seen at every Apple-stall in the kingdom at one shilling each, or a penny a slice. Judging from the slow sale and cheapness of these foreigners, their sickly nondescript flavour does not go down after the novelty of the first taste is over ; and in reality they bear no comparison, in our estimation, to a good Windsor Pear or early harvest Apple. These inundations of foreign fruit, however, have nearly driven English-grown Pines from fashionable society, as a London fruit salesman told me the other day, and has reduced the price of them from one-third to a half, to the loss of the London market-gardeners, who now find a house of Pinks, Roses, or even Capsicums, more profitable things to grow than Pine-apples. I do not, however, suppose English Pines will be entirely banished from the tables of the wealthy ; they are too sterling a production to be dispensed with at the dessert, and their imposing appearance gives a character to it which confectioners would not willingly part with ; and as the opinion generally entertained that they are expensive to grow is not altogether true, I will undertake their cause by sending you a few hints on their culture (if you can find room for them). In doing this I have nothing new to advance ; my system is very simple ; and as the Pine plant itself is very accommodating, there is no difficulty to overcome further than what any amateur may undertake with the assistance of a pit or frame to grow them in.

SORTS.—There are only a few kinds worth growing, and the amateur particularly should not trouble about novelties. For a large Pine the only real good one is the Providence. The Black Prince is handsome, but worthless to eat ; the Trinidad inferior and shy ; and the Enville is by no means so good as the Providence. For summer fruit, and indeed for the general crop, the true Ripley Queen deservedly stands at the head of the list ; it grows freely, and fruits in from twelve to eighteen months after potting the suckers : none of the other kinds of Queen are worth naming excepting the Moscow Queen, which is a short stocky-growing Pine, and fruits equally free as the Ripley—the fruit a fine golden yellow, and flavour good. For winter and early spring there are two I can recommend, viz., the Old Black Jamaica, or the

Montserrat of Lancashire and Yorkshire growers, and the Smooth-leaved Cayenne. The former grows somewhat tall, shows fruit freely, but the fruit is a month longer in ripening than either the Queen or Providence; the colour is a dark orange when ripe, and the flavour very first-rate; it rarely exceeds 4lbs. in weight, but swells well and is of good flavour during winter, and as it is rather later in fruiting than the Queen it is usually kept back for supplying the winter and spring demand. There is a new Jamaica—worthless. The Smooth Cayenne is a rather recent importation from France. It has many of the good properties of the Jamaica; the leaves, however, are (as its name implies) spineless, the plants grow thick and spreading, the fruit attains a large size, swells nearly equally as well in the winter as in the summer, and is very high flavoured; this is a very valuable kind. There is too a Prickly-leaved Cayenne—a very different Pine from the former, independent of the spines on its leaves. This is one of the handsomest of Pines, particularly if the flowers set well, when the fruit is very regular and handsome; it is a tall growing Pine, with large fruit, frequently 6lbs. and 7lbs.; strange to say, the best fruits obtained from this variety are those which bloom in the autumn and ripen in the spring—in the summer it is very liable to crack at the base of the fruit. This Pine is more acid than any other I know; it need not be grown extensively. We confine our choice, then, to the Providence, Ripley Queen, Black Jamaica, and Smooth Cayenne.

(To be continued.)

THE RECTORY FLOWER GARDEN, STANTON, ST. QUINTIN, WILTS.

HAVING recently visited the flower garden at this place, the residence of the Rev. C. Grey Cotes, we were so much struck with its general arrangement and effect, that we asked permission to give a plan of the garden and list of plants employed in the *Florist*, a request at once acceded to by the esteemed proprietor and his amiable lady, whose love of and fine taste for gardening, aided by the perseverance and good management of Mr. Hatherall, their gardener, have been the means of collecting round their residence one of the gayest assemblages of flowers perhaps ever seen.

We are the more anxious to present our readers with the information this garden conveys, from the conclusion arrived at by ourselves (and, indeed, by all who have seen it) that, so far as regards arrangement of colour, and attention to habit, it can hardly be improved, if improved at all; and for the additional reason, that lists of what are found by experience to be really good and effective plants, when massed together and arranged agreeably with the law which governs the distribution of colours, so as to form a perfect combination, afford a much more valuable kind of information than speculative discussions on systems of arrangement, which, however ingenious they may be, and pleasing to the eye, on paper, too frequently fail when brought to the actual test of experience. It will be seen by a reference to the list of plants appended,

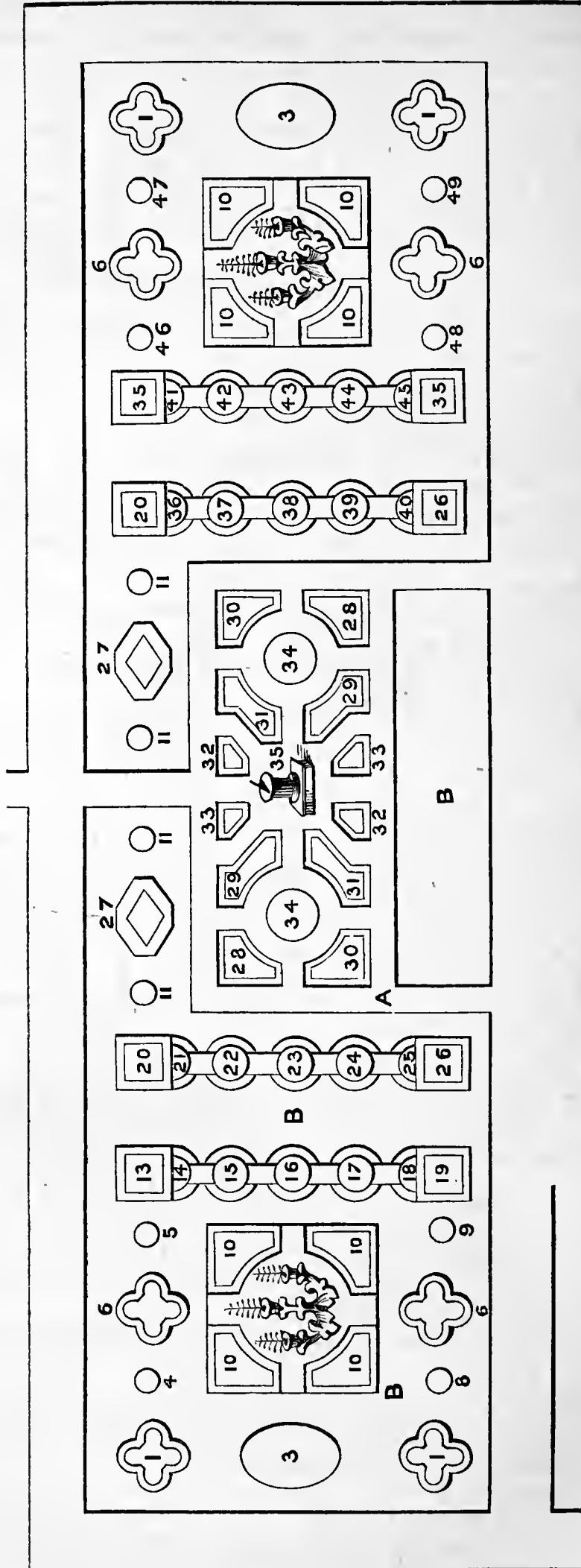
that most of them are well-known old things. The evil of trying new plants, before their merits under different soils, exposures, and seasons, are fully proved has been wisely avoided, and those only planted whose character and habit can be depended on for distinctness of colour and lasting display.

The small village of Stanton lies in the midst of an agricultural district, about midway between Chippenham and Malmesbury; the surrounding country is richly wooded, and rises with a tolerably gradual ascent from the valley of the Avon (about three miles to the east), to the Cotswolds, an oft-described range of hills, distant a few miles to the rear of Stanton to the west; and hence, the village has a more considerable elevation than it appears to have, and the view from the Rectory takes in many distant objects of interest. Nearly due north, the ruins of the once magnificent Abbey of Malmesbury form a fine object, as do also those of the less celebrated Abbey of Clack. More to the east—due east—the Cherhill Downs, with the White Horse (a colossal figure of a horse cut in relief on the side of the chalk hill) and Lord Lansdowne's obelisk, are conspicuous; while to the south the view is bounded by the outlines of the chalk escarpment called the Warminster Downs, which are distant upwards of 20 miles.

The flower garden occupies an oblong square in front of the Rectory, and we regret that our page affords only space for the central part, which fronts the Rectory. By way of explaining how the rest of the garden is laid out, we may inform our readers that a neat iron fence separates the whole from a park-like field; between which and the exterior gravel walk (as shown in our woodcut) there is a border of grass 12 or 14 feet wide, on which, running parallel with the walk, is a number of small circular beds, each planted with a low standard Rose for a centre, and the bottom filled up with two or three kinds of plants, whose flowers blend well together: the general effect of this running border of circular beds is very effective. Opposite the front door, a break has been made in the line of fence, by throwing it further into the field at right angles, and forming a recess opposite the centre of the garden. The walk from the sun-dial intersects this, and is carried to an iron gate in the centre of the recess, leading to the field, and which is arched over for creepers. In the recess, on each side, are three large vases, in a line with the house, and circular beds; these are filled with the choicest kinds of scarlet Geraniums, and when seen from the house, form a fine background, for the main portion of the flower garden, and relieve the whole very effectively. The west end of the flower garden abuts at a short distance on the kitchen garden, from which it is separated by a wall. On a border here is laid down a very pretty arrangement in the ribbon style, after the following manner:—

- 1st Row, *Lobelia Erinus speciosa*
- 2nd „ *Mangles' Silver Geranium.*
- 3rd „ *Verbena Emma (light blue).*
- 4th „ *Rosy Scarlet and Commander-in-Chief Geraniums (alternately).*
- 5th „ *Trentham Gem Calceolaria.*
- 6th „ *Purple Zelinda Dahlia.*

We can strongly recommend this arrangement as a very effective one. Another border just the same—excepting that Flower of the Day was



substituted for Mangles'—was not near so pleasing;—the soft tints of the latter blend very completely with the Emma Verbena behind it and the blue Lobelia in front.

- | No. | REFERENCE TO BEDS. |
|-------------|---|
| 3, 3. | Mixed Rhododendrons, edged with Zelinda and Crystal Palace Dahlias |
| 1, 1, 1, 1. | Lord Raglan Geranium |
| 6, 6, 6, 6. | Yellow Calceolaria, with blue Lobelia edging |
| 10, 10, &c. | Verbena venosa, edged with variegated Alyssum |
| 4, 5. | Perilla nankinensis for centre, edged with Flower of the Day Geranium |
| 8. | Golden Chain Geranium for centre, edged with Imperatrice Elizabeth Verbena |
| 9. | Mountain of Snow Geranium for centre, edged with General Pelissier Geranium |
| 13. | Mountain of Light Geranium for centre, edged with Ivy-leaf Geranium Etoile du Vaise |
| 14. | Lobelia alba cœrulea |
| 15. | Cineraria maritima for centre, edged with Verbena Iris and Nierembergia filicaulis |
| 16. | Calceolaria Trentham Gem, edged with Lobelia ramosoides |
| 17. | Flower of the Day centre, next Duchess de Caisne Verbena, edged with Nierembergia |
| 18. | Anagallis cœrulea grandiflora |
| 19. | Mountain of Light Geranium, edged with Etoile de Vaise Geranium (Lateripes) |
| 20, 20. | Brilliant Geranium, edged with Buchneria bifolia |
| 21. | Phlox Radetzsky |
| 22. | Yellow Calceolaria and Blue Lobelia, as 16 |
| 23. | Perilla nankinensis for centre, next Flower of the Day Geranium, and edged with Nierembergia |
| 24. | Same as No. 16 |
| 25. | Virginium Geranium |
| 26, 26. | Same as No. 20 |
| 11, 11, &c. | Upright Cypress for centre, edged with Mountain of Light Geranium |
| 27, 27. | Kentish Hero Calceolaria, edged with Lobelia Erinus speciosa |
| 28, 28. | Geraniums Trentham Rose and Commander-in-Chief mixed, edged with Mangles' variegated |
| 29, 29. | Flower of the Day Geranium, edged with Verbena venosa |
| 30, 30. | Purple King Verbena, edged with Cerastium tomentosum |
| 31, 31. | Collins' dwarf Geranium, edged with Saponaria calabrica |
| 32, 32. | Mons. Pasquin Verbena, edged with Oenothera prostrata |
| 33, 33. | Loveliness Verbena, edged with Lady Plymouth variegated Geranium |
| 34, 34. | Humea elegans for centre, next a row of Kentish Hero Calceolaria, then scarlet Ivy-leaf, bordered with Etoile de Vaise Geranium |
| 35, 35. | Same as 13 and 19 |
| 36. | „ 25 |
| 37. | „ 16 |
| 38. | „ 23 |
| 39. | „ 22 |
| 40. | „ 21 |
| 41. | „ Lantana Sellowii |
| 42. | Alma Geranium, next Tyrian Prince Verbena, edged with Nierembergia |
| 43. | Same as No. 16 |
| 44. | Cineraria maritima, next Blue Bonnet Verbena, and edged with Nierembergia |
| 45. | Lady Hume Campbell Geranium |
| 46. | Saponaria calabrica |
| 47. | Louis Napoleon Verbena |
| 48. | Blue Lobelia, edged with variegated Arabis |
| 49. | Variegated Phlox omniflora, edged with blue Lobelia |

Having looked over the large number of plants which has been transferred to the borders, baskets, &c., we were somewhat surprised to find that a very old-fashioned greenhouse, heated by a flue, was nearly the only place Mr. Hatherall has to propagate and store his plants in for the winter. We say nearly, for it is true we saw a few turf pits, &c., which serve for hardening off the plants in spring. Mr. Hatherall strikes all his Geraniums on a south border, which saves a deal of frame room, and, moreover, succulent kinds, which frequently damp off when subjected to the close air of a pit, strike very freely this way. Mountain of Light, Lady Plymouth, Golden Chain, and in fact all the choice variegated leaved sorts are either propagated in this manner, or in shallow boxes about 18 inches square, the boxes being filled with cuttings, and placed on a south border to have the sun as much as possible. These are usually allowed to remain in the boxes all the winter, but those in the open border are taken up and potted as soon as struck. On the whole, the number of plants reared, and the taste and good management displayed in their arrangement and culture, reflect great credit on Mr. Hatherall, and at the same time prove highly gratifying to Mr. and Mrs. Cotes and their friends.

The rustic baskets in the centre of the beds marked No. 10 on the left hand are filled with Flower of the Day Geranium, with a Humea in the centre of each. Those in the centre of the right hand group are filled with Lord Raglan Geranium, edged with Golden Circle Geranium. The margin between the turf and the beds in the chain pattern is laid with bright gravel; the circular beds are edged with dwarf Box, and the connecting link laid with red brick-dust.

We noticed as forming a pretty appendage to the grounds a two-tiered octagon basket of large dimensions, surrounded by eight circular beds, forming a kind of frame to the basket. The divisions between the circular beds, which were filled with different coloured Verbenas, was formed with Golden Chain Geraniums; altogether the effect was very good. We hope to give a woodcut of this in a future number.

NOTE ON SOME VARIETIES OF GARDEN PEAS.

AFTER experimentalising with upwards of a dozen kinds of Peas, I am in a position to bring those really worth growing down to three or four kinds, giving the preference to dwarf over tall kinds, as being more economically grown. Here is my list:—

1. Sangster's No. 1, for the earliest.
2. Bishop's New Long-podded next. This is perhaps the most generally useful Pea grown, and should also be sown for late autumn crops.
3. Burbidge's Eclipse succeeds the above; a very good summer Pea.
4. Hairs' Dwarf Green Mammoth. Decidedly the best summer Pea in cultivation, whether regarded as to its quality, long-productiveness, or hardiness.

For late crops, I repeat No. 2. Dickson's Favourite is good for late as for second early, but it wants rather tall sticks.

(To be continued.)

EXHIBITION AWARDS.—No. II.

	Regent's Park, May 20.	Crystal Palace, May 30.	Chiswick, June 3.	Regent's Park, June 18.	Regent's Park, July 1.
12 GREENHOUSE AZALEAS.					
Mr. Green, gr. to Sir E. Antrobus, Lower Cheam	...	1	...	...	...
Mr. Carson, gr. to W. F. G. Farmer, Esq., Nonsuch Park . . . . .	...	2	...	...	...
Messrs. J. & J. Fraser, Lea Bridge Road . . . . .	...	3	...	...	...
Mr. B. Peed, gr. to T. Tredwell, Esq., Norwood	...	4	...	...	...
Mr. T. Gaines, nurseryman, Battersea . . . . .	...	5	...	...	...
Mr. J. Peed, gr. to C. T. Gabriel, Esq., Streatham	...	6	...	...	...
12 GREENHOUSE AZALEAS (new).					
Mr. Green, gr. to Sir E. Antrobus, Cheam . . . . .	...	1	...	...	...
Messrs. Ivery & Sons, nurserymen, Dorking . . . . .	...	2	...	...	...
Mr. Taylor, gr. to J. Costar, Esq., Streatham . . . . .	...	2	...	...	...
Mr. B. Peed, gr. to T. Tredwell, Esq., Norwood	...	3	...	...	...
Mr. W. J. Epps, nurseryman, Maidstone . . . . .	...	4	...	...	...
10 GREENHOUSE AZALEAS (Nurserymen).					
Mr. G. Clarke, nurseryman, Brixton Hill	1	...	...	...	...
Mr. W. Cutbush, nurseryman, Barnet	2	...	...	...	...
Messrs. J. & J. Fraser, Lea Bridge Road	3	...	...	...	...
Mr. Gaines, Battersea	4	...	...	...	...
10 GREENHOUSE AZALEAS.					
Mr. Green, gr. to Sir E. Antrobus, Cheam . . . . .	...	...	1	1	...
Messrs. H. Lane & Son, nurserymen, Berk- hampstead . . . . .	...	...	2	...	...
Messrs. Ivery & Son, Dorking . . . . .	...	...	3	...	...
Mr. B. Peed, gr. to T. Tredwell, Esq., Norwood	...	...	extra	...	...
8 GREENHOUSE AZALEAS (Amateurs).					
Mr. B. Peed, gr. to T. Tredwell, Esq., Norwood	1	...	...	...	...
Mr. Taylor, gr. to J. Costar, Esq., Streatham	2	...	...	...	...
Mr. W. Clarke, gr. to C. Webb, Esq., Hoddesdon	3	...	...	...	...
Mr. R. Grix, gr. to A. Palmer, Esq., Cheam	4	...	...	...	...
6 GREENHOUSE AZALEAS (open).					
Mr. C. Turner, Royal Nursery, Slough	1	...	...	...	...
Mr. Bray, gr. to Sir J. Goldsmid, Bart., Regent's Park	1	...	...	...	...
Messrs. Ivery & Son, nurserymen, Dorking	2	...	...	...	...
Mr. Morris, gr. to C. Child, Esq., Bromley, Kent	3	...	...	...	...
Mr. Jas. Harlock, gr. to R. W. Nutter, Esq., Wanstead	4	...	...	...	...
6 GREENHOUSE AZALEAS (Amateurs).					
Mr. T. Page, gr. to W. Leaf, Esq., Streatham . . . . .	...	1	...	...	...
Mr. W. Taylor, gr. to J. Costar, Esq., Streatham	...	2	2	...	...
Mr. J. Tegg, gr. to Baron Hambro', Roehampton	...	3	...	...	...
Mr. Rhodes, gr. to J. Philpot, Esq., Stamford Hill . . . . .	...	4	extra	...	...
Mr. G. Young, gr. to W. Stone, Esq., Dulwich Hill . . . . .	...	5	...	...	...
Mr. Carson, gr. to W. F. G. Farmer, Esq., Nonsuch Park . . . . .	...	...	1	...	...
Mr. Green, gr. to Sir E. Antrobus, Cheam . . . . .	...	...	3	...	...

	Regent's Park, May 20.	Crystal Palace, May 30.	Chiswick, June 3.	Regent's Park, June 18.	Regent's Park, July 1.
10 CAPE HEATHS (<i>Nurserymen</i>).					
Mr. Cutbush, nurseryman, Barnet	1	...	...	3	...
Mr. Glendinning, nurseryman, Chiswick	2	...	...	2	...
Mr. W. J. Epps, Bower Nurseries, Maidstone . . . . .	...	...	...	1	1
10 CAPE HEATHS (<i>Open Class</i>).					
Mr. B. Peed, gr. to T. Tredwell, Esq., Norwood . . . . .	...	1	...	...	...
Mr. Williams, gr. to Miss Traill, East Place, Kent . . . . .	...	2	...	...	...
Mr. Rhodes, gr. to J. Philpot, Esq., Stamford Hill . . . . .	...	3	...	...	...
Mr. W. Cutbush, Barnet . . . . .	...	4	...	...	...
Mr. Glendinning, Chiswick . . . . .	...	5	...	...	...
8 CAPE HEATHS (<i>Amateurs</i>).					
Mr. Williams, gr. to Miss Traill, Hayes Place	1	...	...	2	1
Mr. B. Peed, gr. to T. Tredwell, Esq., Norwood	2	...	...	3	...
Mr. J. Peed, gr. to T. Gabriel, Esq., Streatham	3	...	...	...	...
Mr. Rhodes, gr. to J. Philpot, Esq., Stamford Hill	4	...	...	...	3
Mr. Whitbread, gr. to H. Colyer, Esq., Dartford . . . . .	...	...	...	1	2
Mr. R. Hart, Bath . . . . .	...	...	...	...	4
6 CAPE HEATHS (<i>Open Class</i>).					
Mr. W. Taylor, gr. to J. Costar, Esq., Streatham	1	...	2	1	3
Mr. Jas. Harlock, gr. to R. W. Nutter, Esq., Wanstead	2	...	...	2	2
Mr. Green, gr. to Sir E. Antrobus, Cheam	3	...	...	...	4
Mr. J. Peed, gr. to C. T. Gabriel, Esq., Streatham . . . . .	...	...	extra	...	...
Mr. B. Peed, gr. to T. Tredwell, Esq., Norwood . . . . .	...	...	1	...	1
Mr. W. Cutbush, nurseryman, Barnet . . . . .	...	...	3	...	...
Mr. Rhodes, gr. to J. Philpot, Esq., Stamford Hill . . . . .	...	...	extra	3	...
6 CAPE HEATHS (<i>Amateurs</i>).					
Mr. Young, gr. to W. Stone, Esq., Dulwich Hill . . . . .	...	1	...	...	...
Mr. W. Taylor, gr. to J. Costar, Esq., Streatham . . . . .	...	2	...	...	...
Mr. J. Peed, gr. to C. T. Gabriel, Esq. . . . .	...	3	...	...	...
Mr. Jas. Harlock, gr. to R. W. Nutter, Esq., Wanstead . . . . .	...	4	...	...	...
12 EXOTIC FERNS.					
Mr. R. Parker, Paradise Nursery, Holloway . . . . .	...	1	...	1	1
Messrs. Veitch & Son, Exeter and Chelsea . . . . .	...	2	...	...	...
Mr. F. Fletcher, gr. to J. F. Young, Esq., Kennington Lane . . . . .	...	2	...	3	...
Mr. W. Gedney, gr. to Mrs. Ellis, Hoddesdon . . . . .	...	3	...	4	3
Messrs. T. Jackson & Son, nurserymen, Kingston . . . . .	...	...	...	4	...
Mr. M. Carson, gr. to W. F. G. Farmer, Esq., Nonsuch Park . . . . .	...	4	...	...	...
Mr. Baillie, gr. to W. C. Carbonnel, Esq., Harrow-road . . . . .	...	...	...	2	2
Mr. Halley, nurseryman, Blackheath . . . . .	...	...	...	...	4
Mr. Bunney, nurseryman, Stratford . . . . .	...	...	...	...	4
12 STOVE AND GREENHOUSE FERNS.					
Mr. R. Parker, Paradise Nursery, Holloway . . . . .	...	...	1	...	...
Messrs. Veitch & Son, Exeter and Chelsea . . . . .	...	...	2	...	...
Messrs. Jackson & Son, nurserymen, Kingston . . . . .	...	...	3	...	...

	Regent's Park, May 20.	Crystal Palace, May 30.	Chiswick, June 3.	Regent's Park, June 18.	Regent's Park, July 1.
12 BRITISH FERNS IN POTS.					
Mr. Baillie, gr. to W. C. Carbonnel, Esq., Harrow-road	1	1
Mr. Morris, gr. to Coles Child, Esq., Bromley	2
COLLECTION OF BRITISH FERNS AND LYCOPODS.					
Mr. R. Sim, nurseryman, Foot's Cray, Kent	1	...	...	...
Mr. Morris, gr. to Coles Child, Esq., Bromley	2	...	...	...
Mr. Lavey, gr. to E. A. Delgrave, Esq., Tetcham	...	2	...	...	...
Mr. J. Halley, nurseryman, Blackheath	3	...	...	...
10 LYCOPODS.					
Mr. R. Parker, Paradise Nursery, Holloway	1	...	...
Messrs. Veitch & Son, Exeter and Chelsea	2	...	...
Mr. W. Gedney, gr. to Mrs. Ellis, Hoddesdon	3	...	...
Mr. F. Williams, gr. to C. B. Warner, Esq., F.H.S., Hoddesdon	4	...	...
6 TALL CACTI.					
Mr. Green, gr. to Sir E. Antrobus, Cheam . .	1	1	2	1	2
Mr. R. Grix, gr. to A. Palmer, Esq., Cheam .	2	2	...	...	...
Mr. Mortimer, gr. to J. R. Scott, Esq., Hornsey	3	3	1	...	1
6 FUCHSIAS.					
Mr. Thos. Reid, gr. to T. N. Farquhar, Esq., Sydenham	1	...	...	...
Mr. E. Harper, gr. to J. F. Bennett, Esq., Tulse Hill	2	...	...	...
Mr. A. Bousie, gr. to Right Hon. H. Labou- chere, M.P., Stoke Park	3	...	...	...
Mr. G. Blundell, gr. to D. Rowland, Esq., Sydenham	4	...	...	...
Mr. H. Chillman, gr. to Mrs. Smith, Epsom	4	...	...	...
Mr. H. Elliott, gr. to C. Davidson, Esq., Sydenham	4	...	...	...
Mr. Bray, gr. to Sir J. Goldsmid, Bart, Regent's Park	1	1
Messrs. J. Dobson & Son, nurserymen, Is'eworth.	2	...
Mr. W. Hutt, gr. to Miss B. Coutts, Holly Lodge, Highgate	3	3
Mr. Davidson, gr. to G. B'shop, Esq., Regent's Park	3	2
Mr. Gaines, nurseryman, Battersea	4	4
Mr. Rhodes, gr. to J. Philpot, Esq., Stamford Hill	4	...
12 CALCEOLARIAS (<i>Herbaceous</i>).					
Messrs. J. Dobson & Son, Isleworth.	1	...	...	...
Mr. G. Lambert, gr. to Mr. Baring, Oakwood, Chichester	2	...	...	...
Mr. Jno. Cole, Keyfield Nursery, St. Alban's	3	...	...	...
Mr. R. Pryer, gr. to W. J. Carne, Esq., Tulse Hill, Brixton	4	...	...	...
12 CALCEOLARIAS (<i>Shrubby</i>).					
Mr. C. Turner, Royal Nursery, Slough	1	...	...	...

	Regent's Park, May 20.	Crystal Palace, May 30.	Chiswick, June 3.	Regent's Park, June 18.	Regent's Park, July 1.
6 CALCEOLARIAS.					
Messrs. Dobson & Son, Isleworth . . . . .	...	...	...	1	...
Mr. James, gr. to W. F. Watson, Esq., Isleworth . . . . .	...	...	...	2	...
Mr. Gaines, nurseryman, Battersea . . . . .	...	...	...	3	2
Mr. Cole, Keyfield Nursery, St. Alban's . . . . .	...	...	...	...	1
6 SHRUBBY CALCEOLARIAS.					
Mr. C. Turner, Royal Nursery, Slough . . . . .	...	...	...	1	...
6 CINERARIAS.					
Mr. C. Turner, Royal Nursery, Slough	1	...	...	...	...
Mr. Holland, gr. to B. Peak, Esq., Hounslow	2	...	...	...	...
6 KALOSANTHES.					
Messrs. J. & J. Fraser, Lea Bridge Road, Leyton . . . . .	...	...	...	...	2
6 HELICHRYSUMS.					
Mr. W. Laybank, gr. to Thos. Maudsley, Esq., Norwood . . . . .	...	1	...	...	...
Mr. Thos. Page, gr. to W. Leaf, Esq., Park Hill, Streatham . . . . .	...	2	...	...	...
Mr. W. Cutbush, nurseryman, Barnet . . . . .	...	3	...	...	...
Mr. J. Green, gr. to Sir E. Antrobus, Bart., Lower Cheam . . . . .	...	4	...	...	...
Mr. O. Rhodes, gr. to J. Philpot, Esq., Stam- ford Hill . . . . .	...	4	...	...	...
12 BALSAMS.					
Mr. H. Constantine, gr. to C. Mills, Esq., Hillingdon . . . . .	...	...	...	3	...
12 ROSES IN POTS.					
Messrs. A. Paul & Son, nurserymen, Cheshunt . . . . .	...	1	...	...	...
Mr. E. P. Francis, nurserymen, Hertford . . . . .	...	2	...	...	...
10 ROSES IN POTS (Nurserymen).					
Messrs. H. Lane & Son, nurserymen, Berk- hampstead	1	...	...	1	...
Mr. E. P. Francis, nurseryman, Hertford	2	...	...	3	...
Messrs. A. Paul & Son, nurserymen, Cheshunt . . . . .	...	...	...	2	...
6 ROSES IN POTS (Amateurs).					
Mr. Terry, gr. to Lady Puller, Youngbury	1	...	...	1	...
Mr. Busby, gr. to J. S. Crawley, Esq., Stock- wood Park, Luton	2	2	...	...	...
A. Rowland, Esq., Lewisham	3	1	...	3	...
Mr. Mortimer, gr. to C. R. Scott, Esq., Hornsey . . . . .	...	3	...	2	...
6 RHODODENDRONS.					
Mr. J. Standish, nurseryman, Bagshot . . . . .	...	...	1	...	...
Mr. C. Noble, nurseryman, Bagshot . . . . .	...	...	2	...	...
6 RHODODENDRONS, Sikkim and Bhotan kinds.					
Messrs. T. Jackson & Son, nurserymen, Kings- ton . . . . .	...	...	2	...	...
Messrs. Cutbush & Son, nurserymen, Highgate . . . . .	...	...	3	...	...

	Regent's Park, May 20.	Crystal Palace, May 30.	Chiswick, June 3.	Regent's Park, June 18.	Regent's Park, July 1.
50 CUT ROSES.					
Mr. Mitchell, Piltown Nurseries, Maresfield	1	..
Messrs. A. Paul & Son, Cheshunt	1	1
Mr. E. P. Francis, nurserymen, Hertford	2	3
Mr. W. J. Epps, nurseryman, Maidstone	3	4
Messrs. H. Lane & Son, nurserymen, Berk- hampstead	2
25 CUT ROSES (<i>Amateurs</i>).					
Mr. Terry, gr. to Lady Puller, Youngbury	2	1
Mr. Wakefield, Portland Place	2
Mr. G. Taylor, gr. to C. A. Hanbury, Esq., Barnet	3	3
Miss Palmer	1	..
C. M. Worthington, Esq., Caversham, Oxon	3	...
24 CUT ROSES (<i>Nurserymen</i>).					
Mr. E. P. Francis, nurserymen, Hertford	1	...
Messrs. A. Paul & Son, nurserymen, Cheshunt	1
Messrs. J. Lane & Son, nurserymen, Berk- hampstead	2
24 CUT PINKS.					
Mr. C. Turner, Royal Nursery, Slough	1	1
Mr. Baker, Woolwich	2	..
Mr. W. Bragg, Star Nursery, Slough	2
12 CUT PINKS (<i>Amateurs</i>).					
Mr. Baker, Woolwich	1	...
Mr. Parker, gr. to Dr. Maclean, Colchester	1
Mr. Hale, Stoke, near Slough	2
24 CUT PANSIES (<i>Nurserymen</i>).					
Mr. W. Bragg, Star Nursery, Slough	1	...	...	...	1
Mr. W. August, florist, Beddington, Surrey . .	2	...	...	...	...
Messrs. Downie & Laird, Westcoates Nursery, Edinburgh	1	...
Mr. Anderson, nurseryman, Teddington	2	2
24 CUT PANSIES (<i>Amateurs</i>).					
Mr. James, gr. to W. F. Watson, Esq., Isleworth.	1	...	...	1	2
Mr. August, Beddington	2	...	...	...	...
Mr. Holder, gr. to the Rev. E. Coleridge, Eton College	2	...
Mr. Hale, Stoke, near Slough	1

THE PINK.

BOTANISTS tell us that the Carnation and Picotee are both only varieties of the Dianthus or Pink, and not different species from it; just as the Nectarine is but a variety of the Peach—a twin daughter with it of the Almond: thus giving the Pink the greatest importance of the three, as the parent of the other two. Florists in general, I believe, would demur to this order of classification, and would assign the palm of

excellence to the Carnation. Ladies generally prefer the Picotee. But there are not a few humourists—and I am not ashamed to confess myself one of them—who, after all, hold to the Pink as their favourite.

It is well that in matters of taste these differences exist (for in what constitutes perfection in its kind no such differences are found among connoisseurs); else the attention of those to whom all improvements are due—the enthusiasts—would be concentrated on a few of the ornaments of our gardens, and the rest would remain in their primitive barbarisms. If it had not been for the quiet but assiduous labours of the Manns and the Youngs of former days (and we have ourselves in those days spent no inconsiderable amount of patient manipulation of anther and pistil with the hybridiser's brush, and have been rewarded with a silver spoon for our pains—why a *spoon*, Mr. Editor?), and for the Macleans of the present day, where would the modern breed of Pinks have appeared in the race? Fancy the scorn with which a stand of Carnations of 1857 would look on a stand of Pinks of 1827. What would a Puxley's Defiance, for instance, with her spreading crinoline pettic—petals, I mean; her broad and brilliant scarlet stripes without a speck or a spot on her white satin ground, say to a stand of Pinks with John Willmer and Dry's Earl of Uxbridge in the back row, and Barrett's Conqueror and a broken-laced Clarke's Adonis in the front? "*You, relations of mine! Bah! hand me a Clove, or I shall faint.*" Yet Clarke's Adonis was not excelled by the modern Adonis which resembles it. But it was a mule; and after several years' trial I could never get a pod of seed from it, nor did its pollen produce any resemblance to itself, the male parent, in any of its progeny I could so rear from it. I believe it is now extinct; but it had the largest and most perfectly formed guard petals and the largest *grass* of any Pink I ever knew, and the most exquisite colour. But it was extremely difficult to strike, had not petals enough, and rarely if ever laced them perfectly; and as it was of no use as a parent my regrets for it are not vivid.

When I went out, as a cultivator of Pinks, in 1835, Mr. Mann's flowers were showing the greatest advance in properties. It was a seedling from his Bishop Sumner crossed with Clarke's Adonis that won the spoon above mentioned. After that time I heard or saw little of Pinks till five years ago; and I confess to a little ill-natured satisfaction, when I saw in your pages some time back, that other Pink fanciers had been as idle as myself, and, in fact, that for several years the improvement of Pinks had not been very perceptible. This reproach is now fast disappearing, as your illustration for this month shows. And it is a reproach and a shame. There is no reason for the hibernation of Pinks—for their secreting themselves for a period from public regard—any more than there is for Carnations and Picotees to be neglected.

For in truth they are botanically the same, notwithstanding the great differences of habit, time of flowering, constitution, and colouring, which exist between them and the Carnation, and the fixity of these differences in the two races. The Pink comes in first; a month earlier; the whole plant and each of its parts, except the flower, are less than half the size; colours that are common in the Carnation are

never found in it; the mode of colouring is invariably and wholly different from, in fact, exactly opposite to that of the Carnation; the colours of the one radiating from the centre, of the other being in concentric circles. And yet these differences, great as they are, greater than in many real species, do not really separate them, for a Pink has been raised from a Carnation seed and a Carnation from a Pink seed, and the writer has seen a trustworthy instance of both.

Nor has the Pink any reason to shrink from the greater brilliance of her more aristocratic relative. In fact, they can hardly meet. The one has left the assembly room and retired to rest ere the other has decked herself with her ornaments. And what can be prettier than the rich brown cherry of the eye and of the lacing of a Colchester Cardinal separated by a clear ground of white? Then, too, Pinks have, all of them, more or less, the delicious clove scent which is grateful even to those who are offended by perfumes in general. Few Picotees, and still fewer Carnations, retain this characteristic of their original.

In common, however, with the Summer Roses, with bulbous rooted flowers, and with most of our spring adornments, the beauty of all the three is but short lived; eleven months of patience, a week of labour, and three weeks of enjoyment. This hardly suffices for the railroad pace and exacting requirements of our generation. But there is no help for it. And though many drop off to the more enduring Verbena, Fuchsia, variegated Geranium, or even Petunia, there will always be a sufficient number of staunch supporters of the good old favourite, the Pink, to keep up its place among florists' flowers. Go on, Dr. Maclean, and prosper, and put the renegades to shame.

There is a disease to which it now seems it is liable, with some account of which, as it is neither common nor uninteresting, I will conclude. Last year a rather formidable appearance shewed itself, not only in my frames but in the open garden, which at one time I purposed making the subject of a separate article in your pages, but want of time prevented me. It was chlorosis, and it affected nearly the whole of my Auriculas, whole beds of Annuals, a great portion of the young Apple and Pear trees, and some older ones, and some other things. Many plants died; the rest are slowly recovering. Some made no leaves during the whole year, and yet survived; others made imperfect ones in form or colour. The proximate cause I found by numerous inspections to be root-paralysis. The affected plants exhibited no root action during the continuance of the affection. The most singular of all in appearance was a large patch of Pink, a plant of the second year. It had every sign of health for a time, except in the colour of the leaves, which were of an uniform light straw colour. This made its appearance first in the new growth, but before the time of flowering the whole of the old leaves were reduced to the same state of anæmia. It sent up many flowering spikes of the same pale and sickly hue as the leaves, except at the joints, which had a distinct trace of green in them, the only parts of the plant which had. The flowers opened half their usual size, with very few petals, and those deeply serrated in the edge, and no lacing; but with the colour in the eye about the same as in plants of the same variety uninfected. It partially recovered during the autumn, but died in the winter. IOTA.

BRITISH POMOLOGICAL SOCIETY.

AUG. 6.—The General Annual Meeting was held this day. R. Hogg, Esq., in the chair. Mr. J. Small, of Colnbrook nursery, near Slough, was elected a member. The Assistant Secretary laid before the meeting a report of the progress of the Society, its present position, and its prospects for the ensuing year, showing that it was steadily, surely, and firmly established, and increasing in usefulness. He had to report the election of twenty new members during the past year. The number of members brought forward last year was one hundred and forty-eight, from which he had to announce the loss of five, who had died or resigned during the year. The number of members on the books on the 1st of August was shown to be one hundred and forty-three.

The Treasurer laid before the meeting the accounts of the past year, from which it appeared that—

	£	s.	d.	£	s.	d.
The total receipts had been	71	10	0			
Added to a balance brought forward from 1855-56	24	17	0			
	<hr/>			96	7	0

And that the expenditure had been—

For Rent	16	0	0			
Advertising	5	13	0			
Printing, Stationery, Postage, &c.	22	12	4½			
Fixtures and Furniture	5	2	6			
Carriage of Parcels and Expenses connected with Meetings	4	10	8			
Assistant Secretary's Salary	20	0	0			
	<hr/>			73	18	6½
Showing a balance to be carried forward of Cash in hand				22	8	5½

The following abstract shows the comparative receipts, expenditure, and prospects of the Society at the close of the financial years ending 31st July, 1855, 1856, and 1857:—

	July 31, 1855.	July 31, 1856.	July 31, 1857.
	£ s. d.	£ s. d.	£ s. d.
Received by Donations	16 10 0		
„ Entrance Fees	34 0 0	18 0 0	9 0 0
„ Subscriptions	33 10 0	49 0 0	54 10 0
„ Arrears . . . . .	...	12 0 0	8 0 0
Total of Receipts	84 0 0	79 0 0	71 10 0
Expenditure	62 16 2	75 6 10	73 18 6½
PROSPECTIVE INCOME.			
Balance carried forward	21 3 10	24 17 0	22 8 5½
Cash uncollected	17 0 0	26 0 0	38 10 0
Probable Revenue from members in ensuing year	43 10 0	63 10 0	71 10 0
Comparative Prospect July 1855, July, 1856, and July, 1857	81 13 10	114 7 0	132 8 5½

This estimated income for the ensuing year being exclusive of what may arise from the entrance fees and subscriptions of new members who may be enrolled.

The members present were gratified to find that the expenditure this year was even less than in the preceding one, although full reports of the proceedings had been printed and posted of every meeting.

The Assistant Secretary announced that a part of the Transactions was in the press, and regretted that the non-fulfilment of the promise by members of important and useful communications had prevented its earlier publication.

The accounts having been examined, it was moved by Mr. J. E. Lane, seconded by Mr. G. Paul, and carried unanimously, that the same be approved.

The list of office bearers was then gone over, and that the time of the annual meeting should not in future be taken up with auditing the accounts, it was resolved, in accordance with Rule IX., that Mr. J. Fraser and Mr. Thomas Moore be appointed Auditors.

Mr. Spencer having in a letter regretted that his distance from town and many engagements prevented his being so useful as he desired in the office of Secretary, and having also expressed a wish that the meeting would elect some one who could better attend; it was resolved unanimously that Mr. Spencer be requested to continue in office.

It was resolved as an alteration of Rule IV., that "Members elected within three months of the termination of the financial year shall not be called upon to pay subscriptions until the annual meeting;" and "that this resolution should be retrospective as regards the year just terminated."

Of subjects of exhibition, G. S. Wintle, Esq., of Gloucester, had a Seedling Melon, which was not distinguishable from the smooth variety of the Trentham Hybrid. Mr. Elphinston, gr. at Flixton Hall, near Bungay, sent a Seedling Melon called Elphinston's Hybrid; he described it as a cross between the Trentham Hybrid and the Sebright. It was considered a variety well worthy of cultivation, large, netted, oval, and nearly white in colour; the flavour solid, very melting, juicy, and sugary. Mr. Rivers exhibited a new French Grape called Gros Maroc. Mr. Ingram, of Frogmore, sent a Seedling Apricot called the Frogmore Apricot, describing it as usually ripening by the end of August, but much earlier, and below the average in size this year; as being healthy, a free bearer, and similar in habit to the Moor Park. It was not stated wherein it differed from the last named variety, from which the meeting were unable to distinguish it. Mr. Ingram subsequently reported that it was of better quality at Frogmore than that variety, and usually about three weeks later. Mr. Ingram and Mr. Kinghorn exhibited fruit of the curious old variety Abricot Noir, or Black Apricot. Mr. Lane, of Berkhamstead, exhibited from pots specimens of Royal George, Royal Charlotte, and Sulhampstead Peaches. The last mentioned of these is a variety of some years' standing, but not so well known and valued as it deserves; it closely resembles the Noblesse, but is hardier in every respect, and especially recommended to be grown in those gardens where the latter is not found to thrive.

Of Nectarines Mr. Lane also exhibited from pots, Imperatrice, flesh firm, but deficient in flavour; Elruge, very good, and Early Newington, a clingstone variety, which is in best condition for eating after it has shrivelled. Mr. Rivers exhibited specimens of two seedling varieties of the Stanwick Nectarine, Nos. 3 and 4, from plants grown in pots and ripened by fire heat; they were reported to be free from the shrivelling and cracking propensities of the old variety, to which they were considered quite equal in flavour. No. 4 was a round fruit, of the same appearance as the parent. No. 3 was larger, and oval in shape. Mr. Rivers exhibited Early Prolific Plums, not quite ripe. Mr. Lane exhibited from pots Drap d'Or, in fine condition, and Kirke's, not ripe. Mr. Kinghorn showed from a north wall a variety of Cherry called St. Margaret's, a firm-fleshed very large Black Cherry; it was believed to be the same as Tradescant's Black Heart. Mr. Adams, of Brentford, exhibited fruit of Buttner's Yellow, a small, firm-fleshed, sweet, and nicely-flavoured variety, which hangs on the tree till the end of August, and therefore is valuable as being in season when sweet Cherries are not to be had. It is of a fine waxen yellow colour. Mr. Ingram, of Frogmore, sent fruit and branches of the Frogmore Morello, which he reported to be different in habit from the common Morello, more resembling the May Duke in character, forming *spurs*, and fruiting similar to that kind, as well as on the previous summer's growth like the Morello. It was also said to be of strong growth, and not liable to *die back*, like the old variety, and Mr. Ingram considered it would be desirable for growing in soils where the common Morello does not thrive. The specimens of wood strongly exhibited the May Duke character referred to, and the leaves were broader and more coarsely serrated than those of the common variety. Of Gooseberries, Mr. Adams exhibited the White Warrington, a variety in every respect resembling the Red Warrington excepting in colour. Messrs. Joseph May & Co., 1, Wellington Street, Strand, exhibited fine large specimens of twenty varieties, but without name. Mr. Adams exhibited a seedling Black Currant, reported to be much sweeter and equal in other respects to the common Black. The samples shown, however, being the late hanging berries, were not good enough to judge of its merits. Mr. Adams also exhibited Knight's Long-Bunched Red and Ogden's White. Mr. Adams exhibited a new variety of Pear called Jolivet.

CALENDAR FOR THE MONTH.

Auriculas.—If the directions given last month have been carried out there will be but little else to do for some time, but to keep the plants clean and moderately moist.

Azaleas.—After the middle of the month, these should be taken into the houses, but before doing so, they should be carefully examined for thrips—they should be placed in an airy situation. Keep the atmosphere for the young plants drier, in order to mature the late growths, before the short days.

Camellias.—Towards the end of the month these should be taken in-doors and placed in a cool situation, where they can have plenty of air.

Cold Frames.—Have these in thorough order for the reception, on the first indications of cold weather, of all such things as require such protection. Cuttings of bedding plants will strike freely in them, if there be a little fermenting material put into them, just sufficient to cause a gentle bottom heat.

Cucumbers.—Attend to plants in bearing; use every endeavour to keep down insects, and give them a little liquid manure occasionally to keep them in a vigorous state as long as possible. Plants for winter bearing should have abundance of air to get them strong and vigorous; those who want plenty of Cucumbers at Christmas should now pay attention to the plants before the short days.

Carnations and Picotees.—Soon after the middle of the month, the layers first laid down may be taken off, and either potted at once in small pots for wintering, or planted out in well-prepared soil for a time, to increase their strength, and then be potted up at a later period. If the latter plan be adopted, it will be necessary to protect them from heavy rains or too much sun at first; but let them be grown as hardy as possible. Though more room is required, still it is best to grow them a plant in a pot, instead of in pairs, both for greater increase, as well as to produce larger blooms the succeeding year.

Dahlias.—The bloom of this favourite flower will now be at its height. If the plants are not become fine and vigorous, it will now be too late to produce them; but the small lateral shoots may be removed to increase the size and beauty of the late blooms. Pay attention to seedlings—take notice of their peculiarities, also look to seed saving, especially from constant kinds. Careful attention now will save a great deal of time and labour hereafter.

Flower Garden.—Look often and carefully over every bed, and pick off all dead leaves and decayed flowers. Spare no pains to keep up the present beautiful appearance as long as possible; roll the grass frequently, and mow as often as it is necessary. The different variegated leaved plants, which have of late years been so extensively used in bedding, are great acquisitions; when they have been properly managed they produce a highly pleasing and artistic effect. The different edgings will require considerable attention to keep them regular and neat. This is the time to take notes of such novelties as are real improvements on those plants of similar classes which we already possess. Lose not a day in getting in cuttings of all the different bedding plants.

Greenhouse (hard-wooded).—Prepare to get the plants housed towards the end of the month; we must not calculate too much on the continuance of fine weather, of which we have already had a great deal. Ventilate freely night and day: pay great attention to watering. Plants out of doors should be protected from heavy rains. *Soft-wooded Plants*.—The propagation of these by cuttings must be attended to; they should be potted off as soon as they are struck.

Hollyhocks.—Seed may now be procured. Continue to propagate by cuttings in the ordinary way.

Kitchen Garden.—Persevere as long as the weather continues favourable, in the destruction of weeds. Hoe and stir the ground well between growing crops. Attend to the proper thinning of the Spinach sown last month. Plant out a good breadth of Cabbage for spring use: the Sprotboro is one of the best sorts for this purpose, as it is rarely that one plant in a thousand runs. Earth up Celery when required to be done, and always do it when the soil and plants are dry. Tie up Endive and Lettuces to blanch. The general crop of Onions should now be got up, dried, and put away; they keep best when strapped and hung up in a cool dry airy situation. Take up the different sorts of Potatoes as they become fit. They are, up to the present time (Aug 20), comparatively free from disease; we have seen a little disease among Hague Kidneys. Manure and dig or trench any ground that may become vacant;—attend regularly to all matters of routine.

Melons.—These should have no more water than is absolutely necessary; they should have all the light and air possible. With constant and proper attention the finest of fruit may be obtained.

Orchard House.—As the ripening of the fruit and the maturation of the wood are now matters of the first importance, all the air possible should be given both night and day, only as little water as possible should be given. Trees that are cleared of their fruit, should be carefully syringed in order to keep the foliage healthy as long as possible.

Peach (forcing).—Towards the end of the month the lights should be put on these houses. But all the air possible should be given night and day.

Pinks.—See Paper in last month's issue.

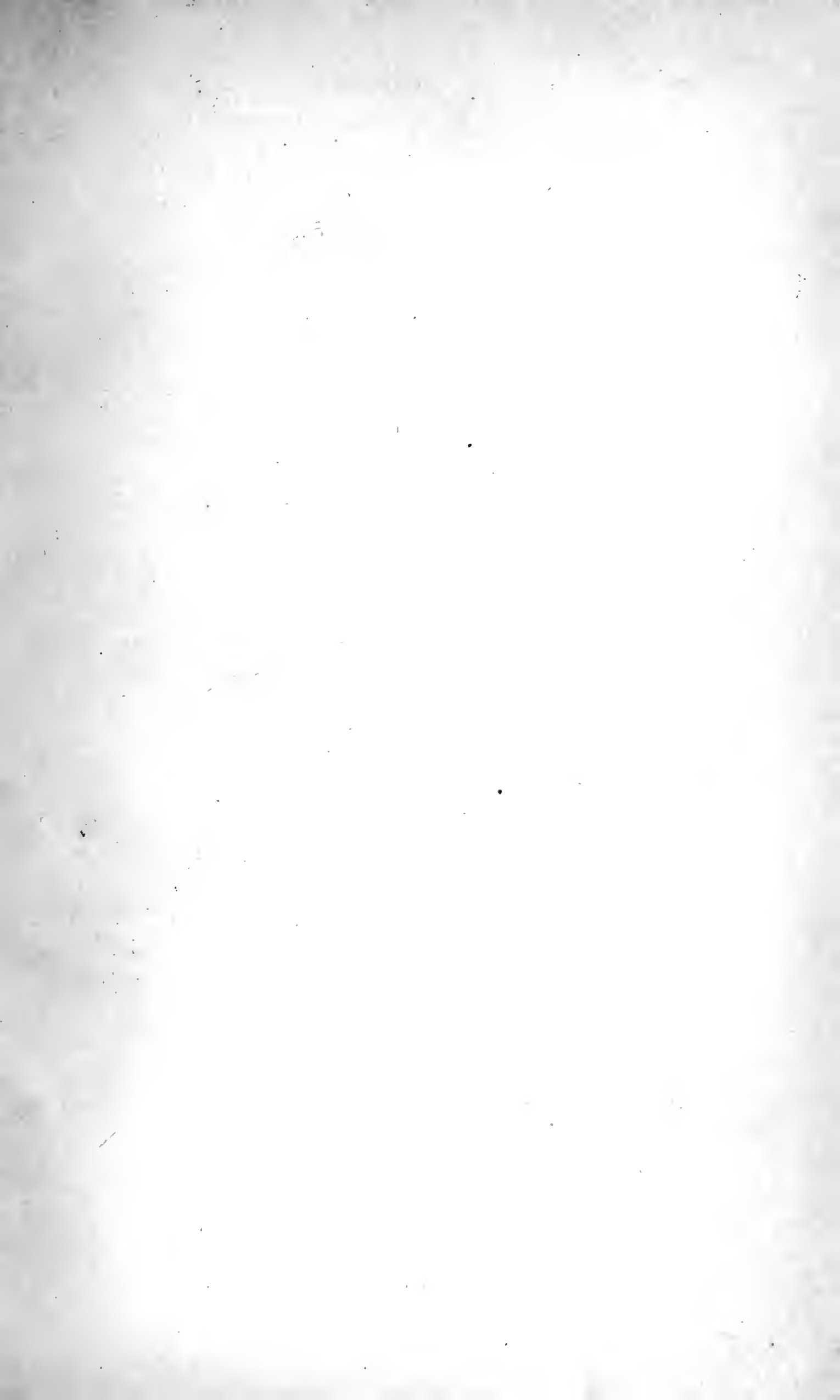
Pelargoniums.—Pot off seedlings when large enough; also cuttings, when sufficiently rooted. At the commencement of the month, the old cut-down plants should be shaken out if it is not already done, and also have their roots pruned, and be re-potted in fresh soil. House all the plants towards the end of the month, keeping them warm. It is a common failing to keep them out of doors or in damp cold pits too long, thus laying a foundation for the spot. Endeavour to keep the plants warm and growing through the early part of the autumn, to insure good bloom.

Pleasure Ground.—This is the best month in the year for transplanting large Hollies and other evergreens; therefore, where there are any to be transplanted it should be done without delay.

Stove.—How seldom do we see *Gloriosa superba* grown as it ought to be. Ours are now in all their beauty. It only requires a good bottom and top heat, and it will grow as free as a Willow. What a grand thing a fine specimen of *Allamanda cathartica* is at this season. Persevere in all endeavours to keep down insects; water when necessary, and ventilate freely.

Strawberry Plants for forcing.—Any potting not done last month should be finished without delay. See previous calendars.

Tulips.—Prepare soil now for planting out these; taking care to keep it in a dry state. Some pure sandy loam, if fibrous, will grow them without any addition, but a little leaf-mould may be added, if well decomposed. The soil for Tulips may be either too rich or too poor.





Peach

CAMELLIA-FLOWERED PEACH.

(PLATE 131.)

IN our February number of the present year we gave a coloured illustration of the charmingly variegated leaved *Farfugium grande*, a Coltsfoot-like plant, which it is expected will prove eminently useful for rockwork.

We now introduce to the notice of our readers another no less valuable Chinese plant,—the Camellia-flowered Peach, a shrub, or rather small tree, which bids fair to be an acquisition of great importance to ornamental gardening. When Mr. Fortune was in China for the Horticultural Society he obtained those beautiful spring flowering shrubs the double white and crimson Peaches, both of which have been much prized in this country. It turns out, however, that these are not the only varieties of double flowered Peaches which the Chinese possess, for Mr. Glendinning, of the Chiswick Nursery, now holds the stock of others, even much more striking and beautiful. Of these, one has rosy pink flowers nearly two inches in diameter, and very double; another is said to be Carnation striped; while a third has blossoms fully two inches in diameter, of an intense deep crimson, and very double. This has been named the Camellia-flowered Peach, and is that which we have this month selected for illustration. Of its value for decorative purposes our readers have therefore an opportunity of judging for themselves. Further particulars respecting it, furnished by Mr. Glendinning himself, we hope to give in a future number.

In addition to these Peaches, a double blossomed *Prunus* also flowered last spring in the Chiswick Nursery. The blooms of this, which were thickly set on long slender twiggy branches, are very round and double, of a delicate pink colour, and upwards of an inch in diameter. It has been named *Prunus triloba*, and we need not add is in all respects a highly interesting species.

 THE POTATO DISEASE.

THE very rapid progress which has marked the spread of the Potato disease since the violent thunder-storms of August is exciting attention; and as the general opinion inclines to the belief that, in some way or other, the intensity of the disease is greatly accelerated through their agency, we bring the subject before our readers.

The Editor of the *Gardeners' Chronicle*, by way of explaining this feature of the disease to his readers, states that it may be owing to the nitric acid formed in the atmosphere during a thunder-storm reaching

the plant through the medium of rain-water, and thereby affording an extra supply of nitrogen or its compounds to the Potato-fungi, which, like all other fungi, are known to increase with wonderful rapidity when provided with an abundance of this kind of food. Whether this hypothesis may prove to be correct in all its bearings we do not undertake to say; but, so far as our own observations lead us to form an opinion, we consider it the most intelligible inference yet drawn in reference to the connexion of thunder-storms with the increased virulence of the disease which takes place after their occurrence. All our correspondents inform us of the fact of their crops becoming much worse after the late rains, even where sound previously; but we give a case or two which we have witnessed ourselves. A short time before the heavy rains which fell in August we walked over four acres of Potatoes in company with a friend to whom they belonged; they were the variety known as "Irish Cups," and we remarked on their luxuriant appearance; on trying them, the tubers were all sound and healthy. My friend saw them the day before the storm, and no trace of disease was observable. They were almost inundated for two days by the rain which fell, and the third day afterwards showed the disease, which progressed with great rapidity and quickly destroyed the crop, which has been ploughed up as worthless. An adjoining piece of about two acres of "Regents" suffered in the same manner, and have been sold for 1*l.* per acre. We could cite several other cases of a similar nature, if necessary, to prove the almost simultaneous spread of the disease which followed these storms.

The intensity of the malady is greatly increased when the plants grow on a damp soil. In our own field, which contains some isolated damp spots (but is otherwise quite dry), a much larger proportion of the crop is rotten. On such patches not more than one-twentieth part is sound, while on the adjoining land, where the soil is dry, a much less proportion is found diseased. As we have not observed so marked a difference in former years, when under the same crop, the natural coldness of the soil has been increased by the rains to a point fatal to the crop, unless the causes named above have a more intensifying action on damp soils.

On examining the crops now being taken up on a variety of soils, the best crops in this neighbourhood are being obtained from dry calcareous loams, of rather a heavy texture; on these soils the proportion of diseased tubers is comparatively small, but the hot weather of June and July had nearly perfected their growth, and they have not suffered in the same ratio as the later crops. Next, as regards freedom from disease, are the crops on dry sandy loam. Where the land has been enriched with farm-yard manure, as we expected, the produce is much diseased; leaf-soil, wood-ashes, and artificial manures are producing the cleanest and soundest tubers, other conditions being the same. Decidedly the finest crop we have examined was drilled in with superphosphate of lime and soot, and a top-dressing of soot applied before earthing up the rows; the crop was Regents, and the disease made little progress with them, and they continued growing up to a late period—long after their neighbours were dried up. Can any of our

readers give us any information relative to soot as a preventive, when applied as a top-dressing? We have found it a most effectual destroyer and preventive of a nearly similar disease, which for these two years past has attacked our pot Strawberries, which otherwise would have been destroyed; but we have no proof beyond this single case of its acting as a preventive to the spread of the disease in the Potato, though we hope to try it extensively another year. Lastly, early in the history of this visitation, peat soils were supposed to afford an immunity from disease. I looked over a plot the other day on this description of soil, but nearly all were gone.

CASTLE COMBE, WILTSHIRE.

THE SEAT OF GEORGE POULETT SCROPE, ESQ., M.P.

THE village of Castle Combe, together with the associations connected with its ancient barony and the noble family of "Scrope," who have possessed the manor from the close of the thirteenth century to the present time, in direct succession, though well known to the antiquary and historian, and equally so to the scientific world of the present day, of which the present proprietor is an accomplished member, has scarcely been mentioned in reference to the beauty of its natural scenery; nor yet, so far as we are aware, to the improvements lately made by Mr. Scrope in the flower-garden, which have so very considerably increased the attractions of the place, that we venture giving a brief description of it to our readers.

The situation of Castle Combe is well described in the following passage from a recent work* :—"The village is situated in the extreme north-east angle of the county of Wilts, adjoining to Gloucestershire, and chiefly built in the bottom of one of those crack-like valleys which drain the western ridge of the Cotswold. A rapid stream runs through it, which joins the Avon just below Box, a mile above Bath. * * * The place is at present chiefly noted only for its romantic natural scenery, the steep sides of the winding valley being clothed with a pleasing intermixture of grass and wood; the hill on which stood the castle, now reduced to mere mounds of rubbish, forming a conspicuous object, and with the very handsome church-tower and picturesque manor-house composing an agreeable scene, to which the old market-cross adds another interesting feature."

The approach to the mansion is directly from the village; the valley contracting at this point and having been well planted up, nothing is seen of the house for some distance after having passed the entrance lodge. As we proceed the glade widens, and extends itself into a crescent-shaped valley traversed by the river, and surrounded by steep hills clothed with wood, and gradually narrowing at the upper part, where it appears to lose itself beneath the overhanging trees occupying the slope of the castle-hill. The mansion is an ancient manorial edifice

* "The Manor and Ancient Barony of Castle Combe. By G. Poulett Scrope, Esq., M.P. Printed for private circulation."

with high gables, and with its older portions covered with Ivy and other creepers. Some extensive additions have been made by the present proprietor, who has judiciously preserved the main characteristics of the older part in the new building, the whole harmonising most completely with the situation and surrounding scenery. The house is well placed for effect on the convex side of the valley, close to the hill behind it, which with its wooded summit makes a rich background, when viewed either from the lower or opposite side of the valley. An invisible iron fence separates the lawn which surrounds the front of the mansion from the park, and in crossing the bridge over the river on the line of approach the lawn is soon entered. We found here some well-managed flower-beds, interspersed with ornamental shrubs; and after passing the front a flight of steps leads up the slope of the hill—which nearly abuts to the mansion—towards the summit of which the very picturesque flower-garden has been laid out in a series of terraces connected by a variety of cross walks and steps. These terrace walks have accompanying borders, filled with a good variety of gay plants. In one direction in the rear of the house a grassy slope, seventy yards long, has been substituted for the retaining wall, on which a line of semi-serpentine beds, with their base at the upper part of the slope, and planted in the ribbon style, was very showy and effective. The plants employed were yellow *Calceolaria*, scarlet *Geranium*, blue *Lobelia*, and variegated *Alyssum* for edging; in the open space between each curve was a small circular bed of scarlet *Geraniums*. At the end of this walk we again ascend by steps to a higher level, when we reach the main portion of the garden, occupying the upper slope of the hill. To give a description of this without a plan is impossible. A small conservatory occupies the higher ground, in front of which most of the beds are arranged; these, under the management of Mr. Flewelling, the head gardener, made a great display, and comprised all the showiest plants usually grown for bedding—the arrangement as regards colour was very good, and both this and the rest of the numerous borders, terrace-walks, &c., were in the best keeping. Mr. Flewelling informed us that the larger garden contains seventy beds, which, to fill in the effective way in which we found them, besides the number wanted for borders, the lawn garden, vases, &c., must require no small skill to furnish annually.

The view from this garden, which we should suppose to be near 150 feet above the level of the valley, is very striking. The rich foreground of flowering plants, with the mansion, valley, and river immediately below the eye of the spectator, and bounded by the richly wooded slopes on the opposite side of the valley, produce a combination of features—natural and artificial—seldom brought so closely together. Nor is the view confined to the front of the spectator only. To the right, rising from the crest of the hill at the upper end of the valley, are the picturesque ruins of the old castle; while close on the left the fine tower of the parish church rising above the wood, which excludes all traces of the town (although within a stone's throw), is equally striking. It would take up too much space for us to describe the different walks, terraces, &c., which complete this interesting garden; we can only say

that there is a unity of character about the whole which forms perhaps not the least interesting feature about it. One objection we have ; and that is to the pieces of sculpture recently placed at the two fountains on the terrace walks, neither of which, in our opinion, are in character with the sober tone of the other accessories, either as to material or design. Descending from the upper gardens by the same flight of steps, the base line of the bank which flanks the house, at the bottom of which a walk conducts to the church, is prettily ornamented by a ribbon of flowers, composed of a front line of Golden-chain Geranium, next *Lobelia ramosoides*, then *Cerise Unique* Geranium, followed by yellow *Calceolaria*, and backed by the purple *Zelinda* Dahlia ; above which the slope is planted with evergreens cut down to a certain height, to allow of some portion of the terrace-gardens being seen from below. A small but unique architectural conservatory adjoins the mansion, and connects it with the retaining wall, above which rises the terrace-garden—this was very gay with *Fuchsias*, *Achimenes*, *Liliums*, and other plants in season just now.

On the whole, this interesting place should be visited, fully to understand its peculiarities. To the admirer of the picturesque it will afford a treat ; while the professional artist and landscape gardener will meet with much about the place worthy of being committed to the sketch-book or memory. Castle Combe is about five miles from Chippenham, and ten from Bath.

S.

NATIONAL FLORICULTURAL SOCIETY.

SEPT. 3.—G. Holmes, Esq., Norwich, in the chair. Dahlias were numerous, and the quality for the most part above the average. The censors were Messrs. W. Holmes, C. Lidgard, J. Pope, and T. Moore. First Class Certificates were awarded to Commander (Fellowes), yet a class much wanted, a large sized dark flower, not quite to our mind ; Queen (Rawlings), a striped fancy of merit ; Alice Downie (Keynes), a full-sized white, of whose centre we are rather fearful ; Sir J. Paxton (Dodds), deep yellow faintly tipped purple, of full size without coarseness ; Venus (Rawlings), a flower of decided merit. Certificates of Merit to King (Rawlings), a flower of the style and marking of Miss Burdett Coutts, colour fawn, the under side of the florets rosy purple ; Mrs. Church (Church), large yellow tipped rosy purple, when well tipped is quite a gem ; Canary (Fellowes), a pretty ordinary flower, of a pale canary yellow colour. Mr. Perry staged a striped fancy named *Papilio* ; this we expect to see better. Mr. Wheeler had three varieties, all too small as shown. Mr. Rawlings, in addition to those before enumerated, contributed Mr. Crichton, orange buff ; Mrs. Boshell, striped fancy. G. Holmes, Esq., brought a striped fancy named *Flirt*, buff ground, flaked and streaked with crimson purple. Mr. Green had *Village Gem*, *Beauty of High Cross*, and *Village Bride* ; three flowers of more than ordinary merit, which will be hereafter described. Mr. Turner's flowers were not in his usual

style; when in better condition we expect they will stand more prominently. Some Hollyhocks from Mr. Shenton, and the Azalea Rosy Circle (whose continuous blooming is fully established), from Messrs. Ivery & Son, added to the interest of the meeting.

SEPT. 17.—Mr. J. Downie, Edinburgh, in the chair. A full meeting, bringing forward, as we suppose, all the Seedling Dahlias likely to be sent out next spring. The society in this respect fully maintains its interest to those who seek knowledge of the new flowers of the season. As we have often asserted, few good things fail to find their way to its meetings. The censors—C. Sainsbury, Esq.; Messrs. J. Pope, J. Downie, J. Edwards, W. Dean, and T. Moore—made the following awards: First Class Certificate to a variegated Hydrangea; in this plant the colour is similar to that of Golden Chain Geranium, being very distinct from the usual variegation, which is silvery; exhibited by Mr. J. Salter. Certificates of Merit were granted to Dahlias Lillie Lund (Burgess), Oliver Twist (Fellowes), Standard Bearer (Alexander), Major Fellowes (Turner), Miss Watts (Turner), Miss Pressly (Turner), Jupiter (Rawlings), Mr. Crichton (Rawlings); these we shall describe at an early opportunity. *Achimenes azurea oculata* (G. Wheeler), was rewarded by a Certificate of Merit, lavender with spotted centre. Messrs. Dodds, Salter, Bragg, Green, Grant, Fellowes, Turner, and Rawlings each contributed flowers of merit, in all thirty-three varieties; these will be hereafter duly described, several of the most prominent of the varieties having received the Society's awards on previous occasions, namely, King, Marion, Canary, and Commander.

HINTS ON ORCHARD HOUSE CULTURE.

“MY orchard house, which has never once failed me, has been a great source of pleasure this season. Peaches from pots $10\frac{1}{2}$ inches round show what can be done. I am as usual at the end of every season impressed with two or three facts; one is, that my tenacious unctuous loam is perfect for Peaches in pots. If sandy loam is used it must be rammed down (when not very dry) most unmercifully. Another is, that taking out the earth, and putting in fresh compost, is better done the last week or so in October. I lost my Apricots by not top dressing them till the blossom buds were swelling. The surface roots, the great feeders, being then disturbed did not commence to feed the germs early enough, so that finding no food they were disgusted and dropped off. What a simple fact! and yet from my having in former years dressed in January, I did not suffer to any extent, although I was several times puzzled to account for some trees dropping all their blossom after blooming freely. I began to cogitate about it seriously this spring, because one Peach tree standing in a warm part of the house dropped every blossom after blooming in great perfection; this was a Walberton, which had always borne so freely. I had first imputed the Apricots dropping to the trees being placed in too warm a part of the house, but

the Peach, which had been dressed when the buds were fast swelling brought me up. These two truths should be known, or the dropping of the blossom of pot fruit trees, in orchard houses, will very likely be attributed to some wrong cause."

The above is an extract from a letter received from Mr. Rivers, of Sawbridgeworth.

CRYSTAL PALACE AUTUMN EXHIBITION.

THE great autumn show of this Company took place on the 9th, 10th, and 11th of September, and on the whole was a very successful display, particularly in fruits, flowers, and cottagers' productions. The collection of plants was extensive, but contained little to call for special notice. We observed, however, two or three fine specimens of the *Meyenia erecta*, figured by us some time since, which fully retains the opinion we then formed of it, and is a valuable autumnal plant. There were also some good *Allamandas* and *Dipladenias*, which are valuable stove plants for gardeners in the country to grow at this season. Balsams were very good; *Fuchsias* very inferior (we see many better at local shows); *Japan Lilies* mostly good; *Achimenes* looked over blown: in this class one called *Meteor* is a fine thing. Variegated and ornamental foliaged plants, including *Ferns* and *Lycopods*, were very good; Messrs. Parker & Williams and Mr. Cutbush are making rapid strides in this department towards overtaking the older growers. These plants are increasing perceptibly in public estimation. In the class for hardy *Ferns* Mr. Sims had an unique set; *Heaths* were good for the season. Taking the plants as a whole, there was no advance, and we missed several really good autumnal blooming plants, not yet, we presume, become fashionable with London growers. But if the pot plants were less showy than we see them earlier in the season, cut flowers were in all their glory, and made a magnificent display. The florist's department formed the best part of the exhibition, so far as flowers were concerned; *Dahlias*, *Roses*, *Hollyhocks*, *Asters*, *Verbenas*, &c., were spread out on tables of immense length. The late rains had freshened up these gay autumn plants, for their appearance was fresh and glowing; indeed they were *one* marked feature of the show—the other was fruit.

We have frequently seen much finer individual specimens of fruit than could be met with here, but the quantity was prodigious; and among so large a quantity some inferior productions are sure to be introduced. The collections contained nothing remarkable in the way of cultivation. *Pines*, taken altogether, were inferior, considering the season was that in which they attain their largest size; there were a handsome *Black Prince* and *Enville*, and one or two fair *Queens*. The best *Grapes* in the exhibition were Mr. Snow's two bunches of *Muscat*. Mr. Harrison had also a good box of *Hamburgs* in the miscellaneous class. Next came Messrs. Fleming, Hill, and Allport, with average specimens; in the former collection we noticed the *Gromier du Cantal*, a grizzly coloured *Grape*, with a musky flavour, and worth growing. Mr. Busby had also his *Golden Hamburg*. *Melons* were in great

abundance; the old kinds keep the lead for flavour, but Mr. Whiting had an excellent scarlet-flesh, said to be new. Peaches and Nectarines very numerous, but there was nothing particular about them; the best came evidently from orchard houses or glass walls. We have, however, seen quite as good this season from open walls; the Walberton was one of the finest in size, and is a valuable kind. Plums, Figs, and Cherries very first-rate; and we observed a solitary basket of Sir Harry Strawberry. In rare exotic fruits, Mr. Scott exhibited a dish of Mangoes, in the culture of which he is famous. Apples, both kitchen and dessert, were magnificent, and Pears mostly the same, and as both were contributed in large quantities, they formed quite a Pomological show of themselves. We only hope that our talented friend of the "Scottish Gardener" was present, to satisfy himself of the degeneracy of our fruit trees; if so, what will he say now to the Ribston Pippins, Kentish Fillbasket, Margil, Hollandbury, Dutch Codlin, Herefordshire Pearmain, Royal Russet, and many other old kinds, as exhibited on this occasion? Nearly all the Apples were in fine condition, large and handsome, with clear, glossy skins, indicating anything rather than *degeneracy*. No, no; we are not going to lose our good old fruits just yet—not even to please the new school of physiologists. Pears were nearly equal to the Apples, especially those from Messrs. Harrison, Whiting, Mitchell, and Frost.

Among plant novelties, Messrs. Rollisson had a beautifully marked leaved Begonia Rex, and a splendid thing it is. Messrs. Waterer and Godfrey exhibited Lawson's Cypress, a valuable ornamental plant previously noticed by us. The new Geraniums (bedding varieties) were not much. In cut Roses, General Jacqueminot, Lord Raglan, Leon des Combats, Bacchus, Gloire de France, Duchess of Norfolk, and Souvenir de L'Exposition were the best.

DAHLIAS AT EDINBURGH.

THE Edinburgh Dahlia shows held on the 10th and 12th of last month illustrated how much good has been effected by the friendly intercourse existing between the Scotch and English growers. We are compelled to admit that the dealers far surpassed the productions of last year, by adhering more to quality as a whole than to size in particular. On the other hand, however, we are of opinion that the flowers of the private growers were not nearly so good as those twelve months previously. Messrs. Downie and Laird fairly took the lead, by receiving all the first prizes in their respective classes; the same marked success attended them with their exhibitions of Hollyhocks. Mr. Handasyde, of Musselburgh, keenly contested in the Dahlia class, on the 12th. Nor could we expect otherwise from an inspection, which was kindly afforded us of the plants on the day previous to the exhibition. A better cultivated collection can scarcely be imagined, and what is of no little importance to an exhibitor, new sorts were not wanting. Mr. Douglas, the Messrs. Lawson & Son, Mr. Ballantyne, and the leading

firms also obviously did their best to ensure the success of both meetings ; this is as it should be. We had but one regret, and that was the want of genial weather, quite precluding all chance of visitors. The silver cup offered to private growers, as advertised in our last number, was gained by Mr. Henderson, gardener to C. K. Sivewright, Esq., of Cargilfield.

Fruit was in no way up to the mark ; this we learn is to be attributed to a generally bad season.

Great interest is already astir regarding the spring exhibition of Hyacinths, and from what we could glean competition will be keen, as on all sides we discovered that extra bulbs will be potted for the occasion. So progressive are the Scotch florists that already a goodly subscription list is formed, as a Dahlia prize improvement fund for 1858. We would suggest to amateurs and private growers that they collect a special fund for a silver cup to be competed for by the trade growers, who in return will, we are certain, repay the compliment to the practicals, and so enhance the interest of the competition in both classes.

J. E.

THE CHRONICLES OF A SMALL GARDEN.—No. III.

“Take my advice, yer rivrence ; if ye want a pony to be of any good yees must keep him to wan thing. For ye see, if ye ride and drive him, when ye’r dhriving him he fancies he has got yer rivrence on his back to hould him up, and it’s most loikely he’ll take to saying his prayers, and yer honner will be rowling in the gutther ; and if ye ride him, he’ll think he’s got the car at his heels, and you’ll have a mighty fine joulting.” Such was honest Paddy’s philosophic speech to me once ; and the moral of it I want to keep before me when I write a few things, as I purpose now doing, on the *Greenhouse and Frames of a Small Garden*.

I. *Greenhouse*.

I have already mentioned the size of mine—16ft. by 8ft.—just about large enough to take two of Mr. Turner’s show plants of Geraniums. But never mind that ; we little people are not growing for exhibition, so we can put two or three hundred small plants, where our greedy neighbours, who want so much elbow room, only put two ; but I do not know of anything wherein we have more need to listen to poor Pat’s advice—“Keep to one thing.” Come, suppose we put on our hats and have a look at one or two of our friends’ houses about the same size, or perhaps a little smaller. Ah ! here we are at Mr. A.’s. “Well, how is the greenhouse ?”—“Oh, capital ! will you have a look at it ?”—“Oh, by all means ; we came on purpose.” We go in ; our friend is ambitious, evidently, and as evidently has a sweet tooth. Along the roof a miserable looking Black Hamburgh is putting forth a sickly attempt to fruit ; in the corner is a large Nerium, which quite fills up and shades the end of the house ; on the top shelf are a few Strawberries in pots, with half a dozen leaves on them ; while Cinerarias, Geraniums, Heliotropes, crowd the shelves. And in what a plight—covered with fly, spindle-shanked, and wretched in bloom. “Why

don't you give more air?" we ask. "Oh! it wouldn't do for the Grapes." So that in order to try and have both, both are spoiled, and for what purpose? That A. may, on some grand gala day, have a bunch or two of seedy looking Grapes on his table, and say "These are out of my own greenhouse." And now let us step across to friend B. He, too, has a greenhouse—it has been built against a wall where a Grape-vine had stood for many years; he could not find it in his heart to exclude it, any more than that eccentric but kind-hearted old Colonel could bear to have the Hyde Park Elms cut down, and there it is at the back of the house. But B. wants a little of everything, and so here are Fuchsias, Heaths, Cacti, Oleanders—"all things great and small"—crowding his shelves and spoiling one another. Old Geraniums, of six and eight years' growth, are there too, and everything in most admired disorder. Well, it is easy to find fault, and I am far from saying that mine is what it ought to be; but I will say, as briefly as possible, what my place is.

1. *As to filling it.*—I strive, as far as possible, to have young stuff, my object being to keep bedding plants over the winter, and also to have the house gay during the spring and summer; hence I do not grow Geraniums after the second year's growth, and had I time should almost be inclined only to grow cuttings of the year. I keep them in small-sized pots during the winter months—giving them a shift in the spring, when Thumbs and suchlike bedding things can be trusted in cold frames, or, indeed, in more exposed situations still. The top shelf, which in small houses is very difficult to water, I appropriate to Tom Thumb—he is not a thirsty soul—and the hardening he gets up there is not against him when he is turned out of doors in the summer; the bedding plants occupy every little nook and corner into which they can be put, and as they are not encouraged to make growth they take up but little room during the winter.

2. *As to heating.*—If a burnt child dread the fire, a frozen one clings to it. Who can picture the consternation with which, in the Crimean winter, I saw all my plants frozen to death? Yea, positively, not a single one left me—a more complete rout than even the Russians suffered at Inkermann. The previous winter having been comparatively mild, a small suspension stove had been sufficient; but, alas! it did nothing now, and had it not been for the kindness of my neighbours I should have had a long while to wait ere the house was replenished. Of course I soon altered my plan of heating, though as my tenure here was uncertain I did not like to go to the expense of a brick flue (which is of all plans the best for a small greenhouse, if you can afford it), but have now an iron one on the suspension plan, but much more adapted for a greenhouse than the original one; when once lighted it keeps in for a long time. I have filled it up with coke at ten o'clock, and found it with a nice fire in it at seven the next morning. One has, unless in such a winter as that, very little need of a fire—you want it sometimes in the cold damp days which we often have before Christmas, and, of course, whenever the thermometer indicates a likelihood of frost; but persons who have a fire often do a great injury to their plants by keeping it going much oftener than they need. I know to some the

idea of an iron stove will appear very ridiculous, but, as I have said before, it is not what is best, but what we can manage most economically that we have to look to; an iron stove costs very little at first going off, and a pennyworth of coke will keep it alight for a whole night, whereas a flue runs away with no end of fuel.

And now a word or two about—

II. *Pits and Frames.*

I have one pit, and very useful it is to me. Here I hope to stow away during the winter some of the hardier bedding plants, and to have a few Heaths and hard-wooded plants, which do better here than anywhere else. It is a two-light one, six feet long and eight feet wide, the front having sashes as well as the top, the sides and end being brick. As spring advances, I get a few Roses in here to bloom, and can feast my eyes—and nose, too—with a good bloom of Jules Margottin, Géant, or Gloire de Dijon. The difficulty, of course, is to keep out frost. I am about to try a plan this winter which I saw in use at a gentleman's garden in West Kent this spring, and which I understood to have been procured from France, though possibly it may be very well known to many of your readers. I have had light frames made the size of the sashes, and on these will be nailed with thin laths a single layer of wheaten straw, and this, I am assured, will keep out a considerable amount of frost, far more so than mats—which, moreover, are very expensive—always rotting, and frequently blowing off when most wanted to keep on. Should, however, the winter be very severe, as the weather-wise folks say is likely to be the case after this hot summer, one must then drive a few stakes into the ground about a foot from the walls of the pit, and fill up the intervals with straw, and then I think one may defy frost.

My single-light frames are three in number, of various sizes; one is given up to Auriculas, another will winter Pansies, and the third Carnations, Picotees, &c. For these, also, I have had straw frames made, though their inmates are much more likely to be injured by damp and defective draining than by frost. In addition to this, I am about to try this winter a straw frame made entirely on the same plan as the covers for wintering the Roses in pots. I saw one such at the place I mentioned, and if any of your readers have to supply drawing-rooms and halls with plants I would strongly recommend these; one can retard the bloom in these very well without making the plants sickly and drawn, as they admit air and light sufficient. They can be put up and taken down at a moment's notice, and in any part of the garden that one likes; and although I have quite a gardener's dread of seeing plants that one has taken care of brought into a house to be covered with dust, blanched like Seakale, and it may be killed outright for want of water, yet if it must be done it is as well to make the best of it.

I have now made a clean breast of it, and think that the readers of the *Florist*, if they have troubled themselves at all about it, know quite as much of my ways and means in the gardening line as if they had walked all through my little plot, and they will better appreciate the difficulties one has to contend with. Time, and means, and space are all circumscribed, but perhaps—nay, I am sure it is better it should be

so ; when one has graver and more important things to occupy one's time and thoughts, it is very needful that we be not drawn aside by even the least hurtful things. Even flowers may become a snare to one, beautiful though they be, full of teachings of the wisdom, love, and power of Him who might have deprived us of all our enjoyment in them had He so pleased ; yet even of these we have need to beware, and I have quite enough to occupy whatever spare time I can afford.

October is a busy month with most gardeners—it is with small ones, I know—except May, the busiest of the year. Here is our bill of fare for the month :—

Auriculas.—The frame will now be shifted to a warmer aspect, there to remain during the winter—about west is best. Water must be given more sparingly, and the surface of the soil moved with a blunt stick whenever it seems hardening.

Carnations and Picotees.—These will, of course, all be established in pots, and in their frames before the month is over. Cut off dead leaves, and keep them as hardy as possible. Again, I would say, avoid *damp*.

Chrysanthemums.—Those in pots will now want moving under some shelter to keep off wet when they show for bloom. My straw covers will, I hope, serve me here.

Greenhouse and Pit.—These will now be filled for the winter. Care should be taken that plenty of air is given, and *drip* avoided. Cleanse the house well before filling it. Look after snails, which swarm this autumn, and are very fond of young tender stock.

Pansies.—These also will be now potted in small pots. Autumn struck cuttings will make the best plants for blooming in pots, being short and stubby.

Pinks.—In the early part of the month plant the beds ; the sooner they get hold of the ground the less likely are they to go off in the winter ; do not *coddle* them too much, but give them fair play.

Our gardens will now begin to look dank and heavy, bouquets will be scarce, and we shall be living on the memories of the past, or the hopes of the future ; but with care and diligence we may reasonably hope for success. May all our friends show the one and have the other.

Deal.

D.

FRUIT CULTURE.—No. VI.

BY MR. POWELL, ROYAL GARDENS, FROGMORE.

(Continued from page 236).

OF all the various modes adopted in the training of fruit trees, perhaps none is better than the *fan* arrangement ; it is not only the most natural form a tree is made to assume, but it offers every facility for renewing dead or useless branches, and furnishing the tree with fruitful shoots. Although the management of fan-trained trees varies in detail according to the description of fruit or habit of the tree, the general position of the leading branches is the same ; they should all radiate from the centre or stem at equal distances, and be

arranged in such a manner that one-half of the tree does not interfere with the other, but be well balanced with shoots of the same strength, so that a uniform growth and an equal flow of sap may be ensured throughout the entire tree.

Fig. 14 represents a tree trained in the fan form, modified to suit the Pear and the Apple. The upright stem is about two feet high, from which the main branches or leaders are trained, five on each side, and put into the position they are to remain in the future tree. All subordinate shoots should be trained on the upper side of the principal

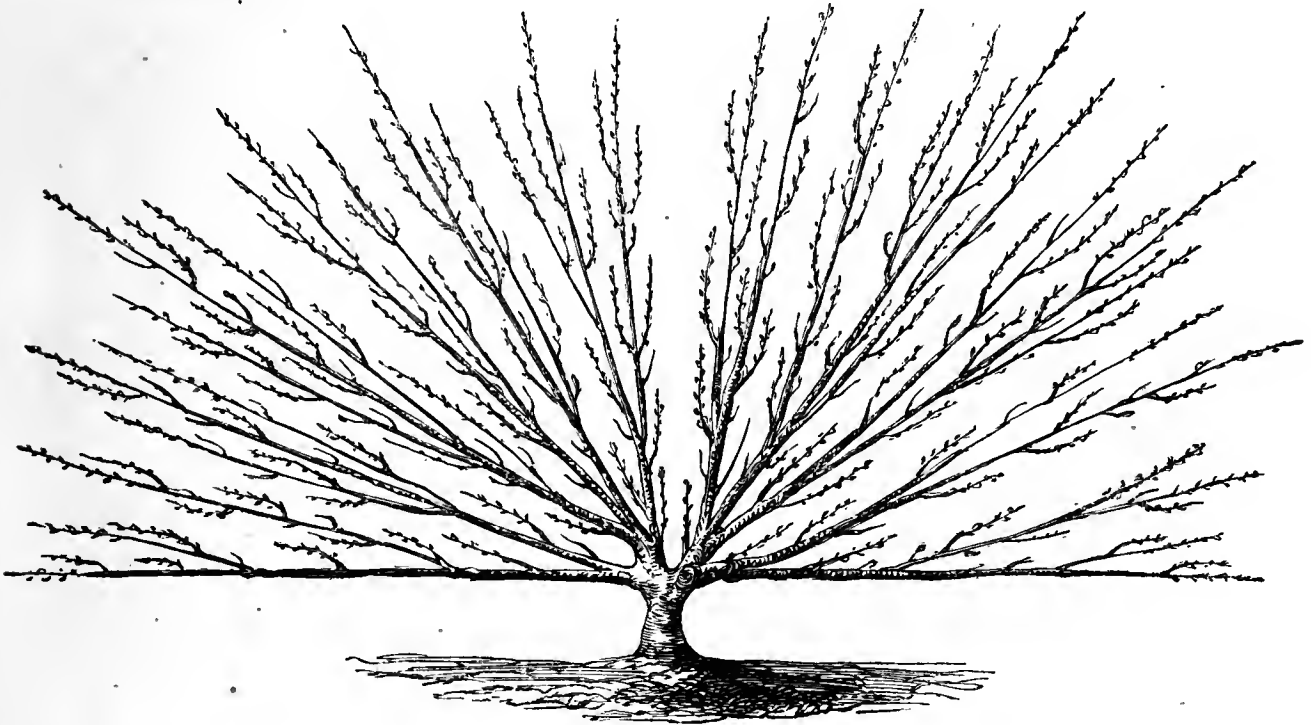


FIG. 14.

branches, so as to fill the space between the leaders, and keep one branch from interfering with another. For this manner of training, choose a young tree from the nursery, with three shoots, two of which will form the lower branches, and be trained in without shortening, so that the lower branches are in advance of the upper ones, which will have a tendency to divert the flow of sap from the upper part of the tree, and cause an equal growth. The centre shoot should be cut down to three buds, to furnish other three shoots, which will form the second pair of leaders; and by stopping the centre shoot during the next summer's growth, the remaining three pairs of leaders may probably be secured; this done, allow all the leaders to grow without shortening, with the exception of any that are likely to be in advance of the others; if so, pinch out the points during the summer's growth. Select the side shoots as the tree advances, stopping all others that are not required to furnish the wall; and when the tree has covered the allotted space stop the leading branches in summer. Cherries will also do well when trained in this manner, and may be managed precisely in the same way.

Nothing can possibly be better than the fan form for training the Peach, Plum, and the Apricot, all of which produce the finest fruit from shoots of one and two years' growth; therefore, a system where the bearing wood can be easily replaced at certain periods, without

amputating large branches, is the one to be recommended for the cultivation of those kinds of fruit; and the fan arrangement offers every opportunity of doing so. The only difference in the formation of this mode from that recommended for the Pear and Cherry is simply that the main branches are *started* from the trunk or base of the tree, instead of a short upright stem, which is merely intended to give the principal branches room to *swell*, otherwise they are apt to be *choked* when the trees become old.

The main leaders in stone fruit trees should not be numerous, and from those several sub-leaders are required well furnished with short fruitful shoots.

Fig. 15 represents a Peach tree when pruned*, and is a modification of the common fan form, the principle of which will be more fully explained when treating of pruning and general management of the trees.

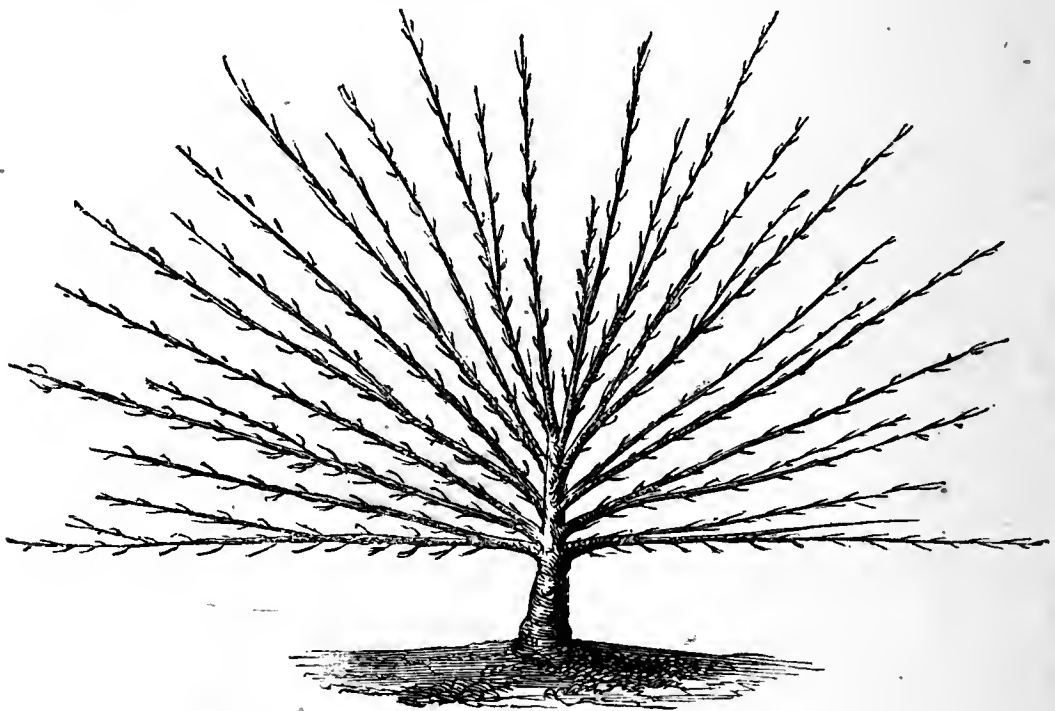


FIG. 15.

Choose a young tree with four shoots; shorten them to within a foot of the stem. Train two shoots horizontally, one to the right, the other to the left; the others midway between the lower shoots and the centre. The next season select five principal leaders from those shoots on each side, which will form the main branches of the tree, after which the smaller leaders and fruiting shoots are selected. As the tree progresses do not shorten the leading shoots, except by stopping in the summer time, that is, if the tree is growing too strong; under this treatment vigorous young Peach trees will soon become fruitful, and if properly managed the weakest part of the tree will be at the *top* and the lower part well furnished with vigorous shoots.

Those trees termed *riders* are from three to five feet high in the stem, and are mostly used for high walls, or for covering the upper part between the dwarf trees; when trained they usually assume the stellar form, and are treated in the same way as dwarf trees.

(To be continued.)

* This drawing was taken from a tree that has been planted 14 years.

EXHIBITION AWARDS.—No. III.

	Regent's Park May 20.	Crystal Palace May 30.	Chiswick, June 3.	Regent's Park, June 1.	Regent's Park, July 1.
FRUITS.					
COLLECTION OF FRUITS IN EIGHT DISHES.					
Mr. Jas. Nichol, gr. to General Studd, Oxon House, near Exeter	1	...	...	...
MISCELLANEOUS COLLECTION OF FRUITS.					
Mr. G. Fleming, Trentham Gardens, Staffordsh.	1
Mr. Henderson, gr. to Sir Geo. Beaumont, Bart., Coleorton, Ashby de la Zouche	2
Mr. Dawson, gr. to Earl Cowper, Panshanger	3
COLLECTION OF PINE APPLES					
Mr. John Davis, Oak Hill, Barnet	1	...	...	...
Mr. Turnbull, the Gardens, Blenheim Palace	2	...	...	...
Mr. James Temple, gr., Dowlais Iron Company's Works, Merthyr Tydvil	3	3	...	...
Mr. W. Davis, Starch Green, Hammersmith	extra	2-4	...	...
Mr. B. Peed, gr. to T. Tredwell, Esq., Norwood	...	extra	...	...	...
Mr. T. Bailey, gr. to T. T. Drake, Esq., Shardaloes Park	1	...	...
Mr. D. Clements, gr. to J. Wells, Esq., Watford	1	...	...
Mr. Bray, gr. to J. B. Lousada, Esq., Peak House, Sidmouth	2	...	...
Mr. D. Price, gr. to W. Forman, Esq., Penyardarren House, Merthyr Tydvil	3	...	...
SINGLE FRUIT OF PROVIDENCE PINE.					
Mr. W. Davis, Starch Green, Hammersmith	1	...	...	...
Mr. Barnes, gr. to Lady Rolle, Bicton, Devon	1	1
Mr. Oates, gr. to Lord Leigh, Stoneleigh Abbey, Warwick	2	...
Mr. T. Bailey, gr. to T. T. Drake, Esq. Shardaloes, Park	3	...
Mr. T. Dawson, gr. to Earl Cowper, Panshanger	2
Mr. E. Robinson, gr. to E. R. Furmo, Esq., Bishop's Waltham, Hants	3
Mr. H. Jackson, gr. to G. Beaufoy, Esq., South Lambeth	3
SINGLE FRUIT OF QUEEN PINE.					
Mr. T. Dawson, gr. to Earl Cowper, Panshanger	...	1	...	...	...
Mr. R. Turnbull, The Gardens, Blenheim Palace	...	2	...	...	...
Mr. Thos. Bray, gr. to J. B. Lousada, Esq., Peak House	3	...	3	...
Mr. J. Davis, Oak Hill, Barnet	extra	...	...	...
Mr. C. Smith, gr. to A. Anderson, Esq., Norwood Grove	extra	...	...	...
Mr. A. Dibbins, gr. to J. Pulley, Esq., Enfield	1	...
Mr. Barnes, gr. to Lady Rolle, Bicton, Devon	2	...
Mr. T. Young, gr. to C. Baily, Esq., Glamorgan	2	...
Mr. Rattray, gr. to J. Back, Esq., Byfleet Lodge	2	...
Mr. Maher, gr. to Sir R. W. Bulkeley, Bart., M.P., Baron Hill, Beaumaris	3	...

	Regent's Park, May 20.	Crystal Palace, May 30.	Chiswick, June 3,	Regent's Park, June 18.	Regent's Park, July 1,
Mr. J. Nichol, gr. to General Studd, Oxon House, Exeter	3	...
Mr. Davis, gr. to H. Blakemore, Esq., Cardiff	3	...
Mr. W. Davis, Starch Green, Hammersmith	4	...
Mr. Constantine, gr. to C. Mills, Esq., Hillingdon	4	...
Mr. A. Brown, gr. to J. Vivian, Esq., Swansea	1
Mr. J. Temple, gr. to C. Clarke, Esq., Glamorgan	2
Mr. Presto, gr. to R. Bitwell, Esq., Basingstoke	2
Mr. Josh. Williamson, gr. to Lord Lonsdale, Whiteham Castle	3
Mr. Page, gr. to W. Leaf, Esq., Streatham	3
SINGLE FRUIT OF ANY PINE.					
Mr. J. Davis, Oak Hill, Barnet	...	1	...	3	2
Mr. Joseph Gillham, Isleworth	...	2	...	...	...
Mr. James Temple, gr., Dowlais Iron Works	...	3	...	...	...
Mr. T. Dawson, gr. to Earl Cowper, Panshanger	...	extra	...	...	...
Mr. T. Young, gr. to C. Bailey, Esq., Glamorgan	1	3
Mr. T. Bailey, gr. to T.T. Drake, Esq., Shardaloes	2	1
Mr. C. Smith, gr. to A. Anderson, Esq., Norwood Grove	1
SINGLE FRUIT OF GREEN-FLESH MELONS.					
Mr. W. Kaile, gr. to Earl Lovelace, Ripley	...	1	...	...	...
Mr. G. Fleming, Trentham Gardens	...	2	3	...	...
Mr. T. Blake, gr. to E. Green, Esq., Ware	...	extra	...	...	...
Mr. T. Page, gr. to W. Leaf, Esq., Streatham	...	extra	...	...	...
Mr. P. Boreham, gr. to Sir Fitzroy Kelly, M.P., Chantry Hall, Ipswich	1	...	...
Mr. T. Frost, gr. to E. L. Betts, Esq., Maidstone	2	...	...
Mr. J. Tegg, gr. to Baron Hambro', Roehampton	3	...	...
Mr. Ruffett, gr. to Viscount Palmerston, M.P., Brockett Hall, Herts	1	...
Mr. G. Ewing, gr. to O. F. Meyrick, Esq., Bodorgan	2	...
Mr. Clements, gr. to J. Wells, Esq., Watford	2	...
Mr. R. Davis, gr. to J. Dixon, Esq., Astle Hall, Congleton	1
Mr. A. Bousie, gr. to Rt. Hon. H. Labouchere, M.P., Stoke	1
Mr. Sparrow, gr. to Lord R. Grosvenor, M.P., Moor Park	2
Mr. A. Hawkins, gr. to G. Brassy, Esq., Bram- field	2
SINGLE FRUIT OF SCARLET FLESH MELONS					
Mr. W. Taylor, gr. to J. Costar, Esq., Streatham	...	1	...	...	...
Mr. Munroe, gr. to Mrs. Oddie, St. Albans	1	...	...
Mr. T. Dawson, gr. to Earl Cowper, Panshanger	2	...
Mr. Gadd, market gardener, Dorking	1
Mr. Marsham, gr. to E. Oates, Esq., Hanwell	2
PERSIAN MELON (the heaviest).					
Mr. P. Boreham, gr. to Sir F. Kelly, M.P., Ipswich	...	1	...	...	...
Mr. Page, gr. to W. Leaf, Esq., Streatham	...	2	...	...	3

	Regent's Park, May 20.	Crystal Palace, May 30.	Chiswick, June 3.	Regent's Park, June 18.	Regent's Park, July 1.
COLLECTION OF THREE DISHES OF GRAPES.					
Mr. R. Turnbull, The Gardens, Blenheim Palace	...	2	...	...	...
Mr. T. Frost, gr. to E. L. Betts, Esq., Preston Hall	...	2	...	...	...
Mr. J. Tegg, gr. to Baron Hambro', Roehampton	...	3	...	...	...
Mr. W. Reid, gr. to J. Hunt, Esq., Sydenham	...	extra	...	...	...
Messrs. Mitchell and Co., Bristol Nursery, Brighton	...	extra	...	...	4
Mr. J. Munroe, gr. to Mrs. Oddie, St. Albans	...	extra	...	...	...
Mr. Henderson, gr. to Sir G. Beaumont, Bart., Coleorton	1
Mr. H. Wood, gr. to C. R. S. Murray, Esq., Gt. Marlow	2
Mr. Phipps, gr. to the Earl of Carnarvon, Highclere	2
12 LBS. OF GRAPES.					
Mr. Hill, gr. to R. Sneyd, Esq., Keele Hall	1
Mr. Henderson, gr. to Sir G. Beaumont, Bart., Coleorton	2
Mr. Bailey, Shardaloes Gardens, Amersham	2
Mr. Phipps gr. to the Earl of Carnarvon, Highclere	2
Mr. Harrison, Oatlands	3
Mr. Orpwood, gr. to S. Bird, Esq.	3
12 LBS. OF GRAPES (<i>Market Gardeners.</i>)					
Mr. A. Watson, Ealing	...	1	...	...	...
Messrs. Spary & Campbell, Queen Graperies, Brighton	...	2	...	...	...
Mr. W. Kay, Finchley	...	2	...	...	...
Messrs. Mitchell & Co., Bristol Nursery, Brighton	...	3	...	...	...
Mr. J. Davis, Oak Hill, Barnet	...	3	...	...	...
Mr. C. W. Alderson, South Lambeth	...	4	...	...	...
Mr. Edwin Sheen, Stoke Newington	...	4	...	...	...
DISH OF BLACK PRINCE, OR WEST'S ST. PETER'S GRAPES.					
Mr. W. Hill, gr. to R. Sneyd, Esq., Keele Hall	1	3	...
Mr. Allport, Doddington Park	1	...
Mr. R. Turnbull, Blenheim Palace Gardens	2	...
Mr. Wells, gr. to Viscount Dillon, Ditchley Park, Oxon	2	...
Mr. Turner, gr. to James Hill, Esq., Streatham	3	3
Mr. W. Taylor, gr. to J. Costar, Esq., Streatham	2
Mr. J. Sparrow, gr. to Lord R. Grosvenor, M.P. Moor Park	3
DISH OF BLACK HAMBURGH GRAPE.					
Mr. T. Frost, gr. to E. L. Betts, Esq., Preston Hall, Maidstone	...	1	1	1	4
Mr. Dods, gr. to Sir John Cathcart, Bart., Cooper's Hill, Egham	...	2	3	...	...
Mr. Fleming, Trentham Gardens, Staffordshire	...	2	2	...	2

	Regent's Park, May 20.	Crystal Palace, May 30.	Chiswick, June 3.	Regent's Park, June 18.	Regent's Park, July 1.
Mr. E. Bundle, gr. to G. Soames, Esq., Streatham	...	3	...	...	...
Mr. Henderson, gr. to Sir. G. Beaumont, Cole- orton	...	3	...	1	1
Mr. J. Davis, Oakhill, Barnet	...	3	...	...	...
Mr. W. Hill, gr. to R. Sneyd, Esq., Keele Hall.	3	3	1
Mr. Tillyard, gr. to Visct. Eversley, Heckfield	4	...	...
Mr. G. Thompson, gr. to Mrs. Dixon, Stansted Park, near Emsworth	4	...	...
Mr. J. Fleming, gr. to the Duke of Sutherland, Cliveden	4	...	...
Mr. Hall, gr. to T. Garrard, Esq., Putney	1	...
Mr. Smith, gr. to A. W. Robartes, Esq., Roe- hampton	2	...
Mr. Hume, gr. to R. Hanbury, Esq., The Poles, Ware	4
Mr. Wood, gr. to C. R. S. Murray, Esq., Great Marlow	3	4
Mr. R. Maher, gr. to Sir R. Bulkeley, M.P., Beaumaris	3	...
Mr. G. Taylor, gr. to C. A. Hanbury, Esq., Barnet	3	...
Mr. J. A. Watson, market gardener, Ealing	3	...
Mr. Sparrow, gr. to Lord Robert Grosvenor, M.P., Moor Park.	3	...
Mr. Hawkins, gr. to G. Brassey, Esq., Bram- field.	2
Mr. Hanson, gr. to J. Thornton, Esq., Southgate.	3
Mr. J. Croxford, gr. to E. Warner, Esq., Wood- ford	4
Mr. Jas. Gorton, gr. to Rev. T. Hendron, Ware.	4
Mr. Bousie, gr. to Right Hon. H. Labouchere, M.P., Stoke	4
DISH OF MUSCAT GRAPES.					
Mr. J. Tegg, gr. to Baron Hambro', Roehampton.	2	...	..
Mr. T. Frost, gr. to E. L. Betts, Esq., Preston Hall	3	...	3
Mr. Laybank, gr. to T. Maudsley, Esq., Norwood.	1
Mr. J. Croxford, gr. to E. Warner, Esq., Wood- ford	2
Mr. Turnbull, Blenheim Pa'ace Gardens	2
Mr. Dods, gr. to Sir J. Cathcart, Englefield Green	3
Mr. Henderson, gr. to Sir George Beaumont, Coleorton	3
Mr. J. Embery, gr. to — Moss, Esq., Chadwell Hall, Essex	3
Mr. Clarke, gr. to C. Webb, Esq., Hoddesdon	4
SINGLE DISH OF FRONTIGNANS OR CHASSELAS MUSQUE.					
Mr. Henderson, gr. to Sir George Beaumont, Coleorton Hall	...	1	...	2	...
Mr. C. Smith, gr. to A. Anderson, Esq., Norwood Grove	...	2	...	...	...

	Regent's Park, May 20.	Crystal Palace, May 30.	Chiswick, June 3.	Regent's Park, June 18.	Regent's Park, July 1.
Mr. H. Jackson, gr. to G. Beaufoy, Esq., South Lambeth	3	...	...	...
Mr. T. Bailey, gr. to T. T. Drake, Esq., Shardaloes	extra	...	...	...
Mr. Busby, gr. to J. S. Crawley, Esq., Stockwood Park, Luton	extra	...	...	...
Messrs. Mitchell & Co., Bristol Nursery, Brighton	extra	...	...	...
Mr. Jas. Drewitt, gr. to Mrs. Cubitt, Denbies, Dorking	1	...
Mr. Tillyard, gr. to Lord Eversley, Heckfield	3	...
Mr. G. Fleming, Trentham Gardens.	3	...
SINGLE DISH OF WHITE MUSCADINE OR SWEET-WATER GRAPE.					
Mr. Busby, gr. to J. S. Crawley, Esq., Stockwood Park	1	...	...
Mr. A. Bousie, gr. to Rt. Hon. H. Labouchere, M.P., Stoke Park.	2	...	...
Mr. G. Fleming, Trentham Gardens, Staffordshire.	2	...	...
Mr. Hutt, gr. to Miss Burdett Coutts, Holly Lodge, Highgate	3	4	...
Mr. T. Bailey, gr. to T. T. Drake, Esq., Shardaloes	1	...
Mr. Wood, gr. to C. R. S. Murray, Esq., Great Marlow	1	...
Mr. Tillyard, gr. to Lord Eversley, Heckfield	2	...
Mr. Munro, gr. to Mrs. Oddie, St. Alban's	2	...
Mr. Thomas, Whetstone	3	...
Mr. F. Williams, gr. to C. B. Warner, Esq., Hoddesdon	3	...
Mr. Phipps, gr. to the Earl of Carnarvon, Highclerc	4	...
DISH OF PEACHES.					
Mr. Constantine, gr. to C. Mills, Esq., Hillingdon	1	2	...	...
Mr. W. Hill, gr. to R. Sneyd, Esq., Keele Hall.	2	1	3	...
Mr. G. Fleming, Trentham Gardens.	3	2	...	...
Mr. E. Tomlinson, gr. to Sir E. Antrobus, Amesbury	extra	...	...	...
Mr. Ruffett, gr. to Lord Palmerston, Brompton	1	...
Mr. Iveson, gr. to the Duke of Northumberland, Sion House	1	...
Mr. Snow, gr. to Earl de Grey, Silsoe, Beds.	1	...
Mr. Taylor, gr. to C. A. Hanbury, Esq., Barnet.	2	...
Mr. T. Dawson, gr. to Earl Cowper, Panshanger.	3	...
Mr. Tegg, gr. to A. Pryer, Esq., Roehampton	3	...
DISH OF NECTARINES.					
Mr. Busby, gr. to J. S. Crawley, Esq., Stockwood Park	1	1	...	...
Mr. G. Fleming, Trentham Gardens	2	2	2	...
Mr. W. Hill, gr. to R. Sneyd, Esq., Keele Hall.	3	3	1	...
Mr. J. Nichol, gr. to Gen. Studd, Oxon House	extra	...	2	...
Mr. Chalmer, gr. to Lord Southampton, Whittlebury Lodge	1	...

	Regent's Park, May 20.	Crystal Palace, May 30.	Chiswick, June 3.	Regent's Park, June 18.	Regent's Park, July 1.
Mr. Tegg, gr. to A. Pryer, Esq., Roehampton	2	..
Mr. Ewing, gr. to O. F. Meyrick, Esq., Bodorgan, Anglesea	3	..
Mr. Sparrow, Moor Park Gardens	3	..
Mr. E. Tomlinson, gr. to Sir E. Antrobus, Amesbury.	3	..	..	..
TWO DISHES OF PEACHES OR NECTARINES, OR ONE DISH.					
Mr. T. Frost, gr. to E. L. Betts, Esq., Preston Hall, Maidstone (one dish)	1
Mr. S. Snow, gr. to Earl de Grey, Silsoe Park (two dishes)	1
Mr. Miller, Eardiston (two dishes)	2
Mr. T. Dawson, gr. to Earl Cowper, Panshanger (two dishes)	2
Mr. Hume, gr. to R. Hanbury, Esq., The Poles, Ware (two dishes)	2
Mr. J. Munro, Colney Hatch (one dish)	3
Mr. Iveson, Sion House Gardens, Brentford (two dishes)	3
Mr. Ruffett, Brocket Hall Gardens, Herts (two dishes)	3
DISH OF APRICOTS.					
Mr. J. Munro, Colney Hatch	1
DISH OF PLUMS.					
Mr. Ingram, gr. to J. J. Blandy, Esq., Reading	1
DISH OF FIGS.					
Mr. Hutt, gr. to Miss B. Coutts, Holly Lodge .	..	1	2	..	..
Mr. Iveson, Sion House Gardens	1	..	..
Mr. Snow, gr. to Earl de Grey, Silsoe	1
DISH OF BLACK CHERRIES.					
Mr. E. Shuter, gr. to Earl de Wilton, Heaton, near Manchester	1	3	..	..
Mr. T. Frost, gr. to E. L. Betts, Esq., Preston Hall, Maidstone	2	..	..	..
Mr. R. Wilson, Saltisford, Warwick	3	..	..	..
Mr. G. Fleming, Trentham Gardens	1	..	..
Mr. J. Fleming, Cliveden Gardens, Maidenhead	2	..	..
Mr. Taylor, Brentford Hill	1	1
Mr. Eastham, gr. to G. Smith, Esq.	2	..
DISH OF WHITE CHERRIES.					
Mr. Taylor, Brentford Hill	1	1
Mr. Eastham, gr. to G. Smith, Esq.	2	..
Mr. Snow, Wrest Park Gardens, Silsoe	1
CHERRIES, IN COLLECTIONS OF THREE KINDS.					
Mr. G. Fleming, Trentham Gardens	1	..	..	..
VINES IN POTS.					
Mr. Iveson, Sion House Gardens	1	1	1
Mr. W. Forsyth, gr. to Baron L. de Rothschild, M.P., Gunnersbury	1	..	..

	Regent's Park, May 20.	Crystal Palace, May 30.	Chiswick, June 3.	Regent's Park, June 18.	Regent's Park, July 1.
Mr. Risley, gr. to W. Fane De Salis, Esq., Dawley Court	2	..	..
Mr. Hutt, gr. to Miss B. Coutts, Highgate	3	..	2
Mr. Robbins, gr. to W. P. Beach, Esq., M.P., Basingstoke.	2
Mr. H. Jackson, gr. to G. Beaufoy, Esq., South Lambeth	3
Mr. Smith, gr. to W. Robartes, Esq., Roehampton	3
STRAWBERRIES IN COLLECTIONS OF TWO DISHES.					
Mr. Widdowson, gr. to J. Barnes, Esq., Rick- mansworth	1	..
Mr. Dawson, gr. to Earl Cowper, Panshanger	2	..
Mr. R. Turnbull, Blenheim Palace Gardens	2	..
STRAWBERRIES, IN COLLECTIONS OF FOUR DISHES.					
Mr. J. Taylor, Brentford End	1
Mr. Phipps, Highclerc Castle Gardens	2
STRAWBERRIES, IN COLLECTIONS OF THREE DISHES.					
Mr. Turnbull, Blenheim Palace Gardens	..	1	..	..	..
Mr. J. A. Watson, Ealing	..	1	..	..	..
STRAWBERRIES, SINGLE DISH.					
Mr. W. Smith, Twickenham	..	1	1	..	..
Mr. J. A. Watson, Ealing	..	2	..	..	..
Mr. W. Dunsford	..	2	..	..	..
Mr. Wallace	..	3	..	..	..
Mr. Turnbull, Blenheim Palace Gardens	..	extra	..	..	..
Mr. J. Gillham, Isleworth	..	extra	..	..	..
Mr. Dods, gr. to Sir J. Cathcart, Cooper's Hill	2	..	..
Mr. A. Ingram, gr. to J. J. Blandy, Esq., Reading	3	..	..
Mr. T. Frost, Preston Hall Grdens, Maidstone	3	..	..
COLLECTION OF TROPICAL FRUITS.					
Mr. Iveson, Sion House Gardens	2
Mr. J. Munroe, Colney Hatch	3

PHALÆNOPSIS GRANDIFLORA.

IN your number for May, 1856, are figured two kinds of Vandas, which certainly are noble plants when well grown, and their fragrance ought to gain for them a place in every collection. The subject of this paper, though it cannot claim attention for that property, is nevertheless equally deserving cultivation, and may be considered one of the most beautiful of Orchids. Complaints are often made, however, that this plant is difficult to cultivate; and that it must be attached to some particular kind of wood to ensure success. That, however, is contrary to my experience, and I do not hesitate to say that under the system of

culture I shall presently recommend, it will be found not only a free-growing plant but also a profuse bloomer; indeed, with three or four plants, and attention to vary their seasons of growth, &c., a succession of bloom may be secured throughout the whole year.

Phalænopsis grandiflora is found rather abundantly in Java—it is, however, local even there; for while many species of Orchids grow plentifully in most parts of that island, this plant is confined principally to the southern valleys, and is most abundant near the sea-shore, thus indicating a peculiarity of constitution which must not be overlooked by the cultivator. Like most East Indian Orchids, this one is found naturally to attach itself to rocks, trees, &c., thus suggesting the idea of employing a similar material in our plant-houses.

It was, I believe, an established opinion during the early period of Orchid culture, that all—with the exception of a few terrestrial species—must be attached to blocks of wood, and that by a constant supply of moisture to the atmosphere, by syringing, &c., the climax of Orchid culture was obtained. This system, however, has to a certain extent exploded, and I may ask where were such *Aerides*, *Vandas*, *Saccolabiums*, *Cattleyas*, &c., produced by that system as are now to be seen in every collection of any pretension? Now, although this is an established fact with regard to many species, yet there are several in our collections which are still cultivated on the old plan, and I am not prepared to say that all may or should be potted. The plant under notice is one which is frequently found growing and flowering tolerably freely on both plans, when in the hands of those who know its nature. My objection to placing the *Phalænopsis* on blocks of wood is that the roots, being much exposed to the action of the atmosphere; are more influenced by its variations than pot plants are; even with the best attention the atmosphere is apt to become dry during the summer, when the sun is more powerful and air admitted in abundance; under such circumstances, plants solely dependent for their supply of food from the atmosphere must suffer—they become more or less dry and flaccid, growth is arrested for the time, and the plants do not attain so large a size. The objection to potting is said to be that the roots being surrounded by a mass of material, which is apt to become soured by unskilful watering, will ultimately ruin them. This I admit is true; but it is to this particular point I would direct attention, and I would contend that larger specimens may be obtained than by placing the plants on blocks of wood.

In potting, the base of the plant should be elevated above the rim of the pot, which should be half filled with broken pots or charcoal, or a smaller pot inverted inside; by this means good drainage will be secured, and there will be less risk of the mass becoming stagnated. The pot should now be filled with a mixture of charcoal, Water Moss (*Sphagnum obtusifolium*), and potsherds, placing a layer of Moss on the surface, which will have a neat appearance. The plant should now be placed in rather a cool situation—say 60°—when it will soon commence to make fresh roots, and with an increase of temperature will grow freely. Attention must be paid not to over-water at this stage, and it is necessary frequently to examine the material with the hand,

to ascertain exactly the state of the roots, so that the plant may have a proper supply of water. Whenever it is found that the Moss is in a state of decay, it is best to shake the whole from the roots and add fresh material. Attention to this will ensure healthy roots, without which failure is certain. The *Phalænopsis* delights in a moist, shady temperature, of from 70° to 85° , during the growing season, and with comparative dryness; a temperature of 55° to 60° , during winter, will be found most suitable.

M.

ROYAL GARDENS, FROGMORE.

WITH the kind permission of Mr. Ingram we now intend giving our promised report of our visit to these noble gardens, during the out-of-door fruit season. And never do we remember furnishing a report with greater pleasure than we do this. We have often given some account of our visits to these (at all times interesting) gardens, but none has ever happened to be at this particularly interesting season of the year. We had looked forward to this visit with unusual pleasure; and we were not at all disappointed in what we had expected; for this department being so very extensive, and every thing in such a perfect state of cultivation, spoke for itself very plainly of the superior management everything must receive. But our readers must not imagine that this is accomplished through any inconsiderate extravagance;—Far from that: for we can assure them that every thing in connection with this establishment is carried on with the most systematic economy; we were fully convinced, by the extent of the department, and the assistance allowed, that without the most perfect management things could not be kept in such beautiful order as we saw them in.

To give our readers some idea of the extent of this department, we had to look over about five miles in length of trained fruit trees, four of which were on walls, besides dwarfs, standards, pyramids, &c., many of them specimens that filled us with admiration, and led us to exclaim, “What extraordinary fruiters!”—we were, however, informed it was not an unusual display.

The gardens form an extensive square, walled in on all sides with walls 12 ft. high, with another wall running three parts round inside the gardens, 100 ft. from the outer, with cross walls from the inner to the outer, dividing the space into five compact gardens, about an acre in each. These gardens are devoted principally to one kind of fruit, so that they afford the facility of placing each variety according to their different habits or constitution upon either of the four aspects. The first of these gardens we looked into was for Pears, and a gratifying sight it was; for, in casting our eyes from one end to the other, so perfect were the trees that it appeared to us more like a garden bounded by a verdant hedge than a wall. Gardeners of the old school have told us that where we had trained trees to please the eye we never had crops to please the mind; but we saw proof of the falsity of their theory, for we had trees before us in form perfect to a twig, in crops perfect to

a fruit. On the south-west wall we noticed the Marie Louise, remarkably fine: some of its single fruit approaching nearly a pound in weight; also the Glou Morceau, literally covered with beautiful clear fruit; Knight's Monarch, a variety highly recommended by Mr. Ingram, for a late keeping kind, and not only a good keeper but some will ripen a month before the others; and, after it is fit for table, it will remain perfectly so for four or five weeks—two valuable properties in the Pear; and Van Mons Leon le Clerc, a very fine handsome sort. On the north-west aspect we saw beautiful crops of the Ne Plus Meuris, Seckel, and Beurré Rance, the latter one of our best late keeping kinds. On the north-east the Dunmore, Fondante de Automne, Winter Crassane, Winter Nelis, Beurré Diel, Shobden Court, a useful late Pear. On each side of the centre walk there are some beautiful pyramid trees, from 13 to 14 ft. high, and perfect in symmetry. The varieties grown in this form are the Louise Bonne (of Jersey), Seckel, Napoleon, Passe Colmar, and Colmar de Aremberg. Independent of this garden, the south-west and north-west aspects in the large squares are devoted to Pears, about the same in character as what we have described. The varieties growing upon the south-west wall were Williams' Bon Chretien, Passe Colmar, Chaumontel, Winter Nelis, Beurré Bosc, Napoleon, Easter Beurre, Louise Bonne (of Jersey). All those varieties named appeared to thrive remarkably well on that aspect. On the north-west wall were mostly the same kinds, as named, in the Pear garden.

We then passed into a garden with Apricots upon the south-east and south-west walls. Although these crops were just going over, we could judge what the trees had had upon them. We were told that from 30 to 40 dozen were gathered from each tree, this season. The varieties chiefly grown and approved of are the Moor Park, Shipley's, Hemskirk, Frogmore Seedling, and Large Early; the latter a very useful kind, ripening fully 10 days before any other variety. The north-west is a Currant wall, and one of the finest we ever saw; they are trained vertically, and, covering a wall 12 ft. high, they have more the appearance of vigorous vines. The sorts are chiefly the Gloucester Red, Red Grape, and White Grape.

The next of these gardens we passed into was devoted to Peaches and Nectarines against the south-west, south-east, and north-east walls. Here we saw again some examples of out-door fruit culture. The trees are what are termed standards or riders trained in the stellar form (a kind of fan system); they are planted 24 feet from tree to tree, leaving each one to cover the space of 288 square feet, and so perfectly have they done it that from one end of the wall to the other scarcely a brick is visible. Although they are now from 14 to 15 years old, they do not display the slightest inclination to become bare, and what appeared most strange to us was that they were more vigorous near the stem than they were towards the extremity. This, we were told, was owing to the plan on which they grow them in these gardens (a system that cannot be explained in this account, but will appear in the *Florist* in course of time). They had all beautiful crops without an exception, and we were astonished to find fine crops and well matured fruit of the Peach and Nectarine upon a north-east wall. We observed particularly

that the Royal George and Royal Charlotte Peaches had invariably the mildew upon them, whilst other kinds, such as the Buckingham Mignonne and Late Admirable, growing immediately in contact with them, were perfectly clean—a proof that it is peculiar to some varieties. Of favourite kinds of Peaches there were the Bellegarde, Buckingham Mignonne, Grosse Mignonne, Noblesse, Violet, Chancellor, Late Admirable, and Walberton; the last-named is an excellent variety, ripening at the same time as the Late Admirable, very much resembling the Noblesse, and equal to it in every point. The north-west wall is a continuation of Currants.

The garden following is devoted entirely to Cherries, and in them we saw the same vigour and beauty which we had noticed in everything else we had seen. The general crop was over, but there were still some excellent late kinds hanging—the Florence, Bigarreau Napoleon (far superior to the old Bigarreau, being larger, better flavoured, and not liable to crack), and Late Duke, a very useful late Cherry. We then came to the last of these gardens, the Plum one, where we saw a splendid collection, upon the south-west wall, the sorts being chiefly Coe's Golden Drop, Green Gage, and Reine Claude Violette (or the Purple Gage), a delicious shrivelling kind, almost equal to the Green Gage. We saw some beautiful crops of the following upon the north-east wall:—the Washington, Goliath, Early Orleans, Kirk's Hative, Coe's Late Red, and Fotheringham; the north-west is all Imperatrice. Besides this garden, the north-west and north-east walls in the large square are filled with Plums. On the former there were splendid crops of the Victoria; the latter is chiefly occupied by late hanging crops of the Blue Imperatrice, Ickworth Imperatrice, Coe's Golden Drop, and Switzen, all very excellent for late purposes.

We then passed into the back garden or forcing ground, a strip about 150 feet wide. The full length of the gardens is divided from the main square by the principal range; at its back is a fine open south-east wall, one half of Apricots, the other of Peaches and Nectarines. Here they are trained in the fan form, and in the same thrifty state as the others we have spoken of. The Nectarines most esteemed by Mr. Ingram for out-door culture are the following:—Elruge, Violet Hative, Murrey, Downton, and Vermash.

We were then shown into the centre square, a large space, containing about eight acres. On the upper side runs a terrace walk (in front of the long range of forcing houses) 20 feet in width, with another narrow walk going three parts round, with two across (the centre is the same width as the terrace walk), meeting in the centre of the square, and forming a circle wherein a fountain continually plays. On each side of the cross walks there are curved trellises, one covered with Pears and the other with Apples, giving the garden a beautiful appearance. The Pears, we were told, that were found to do best upon such trellises are the Beurre Rance, Easter Beurre, Beurre de Capiaumont, Marie Louise, Van Mons Leon le Clerc, Hacon's Incomparable, Vicar of Winkfield, Forelle or Trout Pear, Ne Plus Meuris, Beurre Bosc, and Moor Fowl Egg; many of the specimens were equal to those grown on wall trees. This kind of trellis appears just adapted to the Apple, for

from one end of the walk to the other they had more the appearance of artificial wreaths of fruit slung over the trellis than natural crops. King of the Pippins; Feaan's Pippin, Rosemary Bushel, Pomona, Small's Golden Pippin, Cox's Orange Pippin; these are all very useful kinds, and good bearers.

We saw enormous batches of Strawberries; the varieties principally grown are the British Queen, Filbert, and Ingram's Prince of Wales. The last named has proved to be one of the best for a general crop, keeping a length of time in bearing; the same plants were gathered from successively for seven weeks, and the fruit was equally as good at the finish as at the beginning; handsome, and a good bearer. The Filbert is also highly esteemed in these gardens, taking the place of the British Queen, it being equally as highly flavoured, continues longer in bearing, and much hardier. We saw numerous standards of the Cherry, the Plum, the Pear, and Apple, all with good crops, and of the most approved kinds.

We left the gardens highly gratified with our visit, the result of which we trust may prove interesting and beneficial to our readers.

HERBACEOUS PLANTS.

THE section of plants known by the above name appears to have sunk in the estimation of most persons for the present. Fashion, with flowers, as with everything else, carries the sway. How few gardens are there where those good old plants are to be found in anything like perfection; and yet one cannot but wonder that such should be the case, for when seen in anything like perfection how beautiful they are! Herbaceous plants, like all others, cannot be grown in perfection without considerable trouble, or arranged tastefully without observation and forethought.

For the present, the lion's share of attention is undoubtedly paid to bedding plants; and without saying one word in disparagement of these plants—which are certainly very attractive, particularly when arranged with the taste we see displayed in many gardens—I would urge that the herbaceous border may be made a source of interest and beauty from April to October. Such being the case, I take for granted that the remarks I have to make on the subject may prove of use to some of your readers.

I have said that herbaceous plants cannot be grown in perfection without pains-taking. Where alterations are intended to be made in the coming spring, it is necessary in the first place to note carefully the variation in the height of growth and the various shades of colour, as well as the different colours themselves, and also the habit of growth. All this may appear of little moment, but when the time for re-arranging the plants comes, then it will be that its value will be appreciated. I will suppose, then, that the plants are each marked in the borders in such a way that they will be readily known. The next point to attend to will be to carefully select, or apply to trustworthy nurserymen to select for you, such plants as are really worthy of your

attention; for I am of opinion that a great number of new plants is sold to the public with the conviction that they will be discarded as soon as they are known. This in particular has been the case with many kinds of bedding plants, and for my part I should be inclined to look suspiciously on a long list of *new* plants of any kind. Let me not, however, be misunderstood; our best thanks are due to the person who with good judgment carefully collects such new plants as he knows to be worthy of attention; it is those who, for the sake of making a long list of *new plants*, collect indiscriminately the good and bad, and offer them on equal terms to the public. So long as improvement can be made let us have new plants, but without this they ought not to be offered for sale. But to return to my subject. Plants required to complete the stock should be procured at once. Many it will be possible to increase this autumn, and most of them by the spring. This operation must be carefully attended to, for if otherwise the plants, from neglect, may be lost entirely; it will be better, therefore, to devote a pit or frame to all choice plants, removing the lights during fine weather. The next, and perhaps the most important thing to be attended to at this season, is the securing of a quantity of good pasture loam and farm-yard manure. In some localities this precaution is unnecessary. I am of opinion, however, that in nine cases out of ten it offers the only means of success, and this not only when the borders are first made, but to be a system carried out every three or four years—we should then see those old favourites, with the new, flourishing luxuriantly. The roots of most of the stronger growing herbaceous plants penetrate deeply into the soil, and unless a proper provision is made for them the plants grow weakly, and the first hot summer's day burns them up and renders them unsightly for the season. The system I would recommend, then, is to remove all the plants in February, weather permitting, once in about four years, and, after carefully laying them where they will not be injured in any way, to wheel on the compost prepared, and afterwards to trench the ground eighteen inches deep, mixing well the new soil with the old, quite to the bottom of the trench.

The only operation now remaining is to replant the border, and in this work the notes previously made will be of the greatest value, for by their assistance the groups and shades of colour may be managed with the best effect; and I feel every confidence that a collection of herbaceous plants planted as directed, and with the necessary care through the summer months, will prove of the greatest interest from spring to autumn.

O. P.

REVIEWS.

Natural History of the Vegetable Kingdom. By R. HOGG.
Parts III. and IV.

WE have lately noticed this publication; the last two Parts are now before us, and bring the "History of the Vegetable Kingdom" down to the important natural order Leguminosæ, or Pod-bearers, on which,

as on the other classes described, much valuable information as to their properties and uses will be found. This work is as useful as it is cheap, and should be in the hands of all young gardeners.

Trade Catalogues received since our last.

Messrs. A. Henderson & Co.'s General Plant and Fruit-tree Catalogues for 1857. These are well got up, and contain a large general assortment of nursery stock offered for sale by this well-known firm. In Catalogue No. 3, page 6, will be found a selection of Specimen Plants for sale, with the dimensions of each; a novel feature, and will prove useful for purchasers.

Messrs. Sutton & Son's Autumnal Catalogue of Bulbs, Seeds, Roses, Fruit-trees, &c. Where park, lawns, or pleasure-grounds are thin, they may be improved by sowing selected Grasses not later than the first week in October, after the last mowing.

Messrs. Parker & Williams' Catalogue of Bulbous Roots and Miscellaneous Articles. Great improvements, we hear, have taken place in this nursery.

Messrs. E. G. Henderson & Son's Bulb Catalogue, New Plants, &c., Autumn, 1857. As usual, very complete. There is a capital list of our old favourites, herbaceous, Alpine, and bulbous-rooted plants, at the end, which should be consulted. These plants are not cultivated so much as they should be.

A FEW SELECT HERBACEOUS PLANTS.

Tritoma Uvaria.—This noble herbaceous plant has bloomed exceedingly fine this autumn, and forms a grand object either in groups or mixed with herbaceous plants. It succeeds well in light rich soil, well drained; in some situations a slight protection may be necessary in winter. It is but little known, but merits being introduced to every garden. *T. pumila*, though less showy, should likewise have a place. This blooms later than the above, and makes a good pot plant for the conservatory.

Tritonia aurea.—This beautiful Cape bulb has the richest orange coloured blossoms and grows eighteen inches high. It is now in great beauty, and very suitable either for pots or a border of peat and leaf soil, in which it will thrive well, if only protected from frosts when coming out of the ground. It makes a splendid bed, and lasts for a considerable time in bloom. This, also, should be more frequently grown.

Hemerocallis japonica.—This is generally reckoned a frame plant; we have it growing at the foot of an east wall, and it has thrown off some dozens of scapes of its pure white flowers, exquisitely scented. When well treated this forms a good pot plant, and is very suitable for decorating apartments. It grows best in a strongish loam. When in pots it ripens best by placing the pots at the base of a south wall protected from wet.

Oxalis Bowiei.—This makes a charming bed for this season of the

year; the bulbs should be planted in May, in light rich soil. Nothing can be more showy than the bright rose coloured blooms of this plant on sunny days. It propagates itself freely by forming new bulbs, but sometimes does not ripen them well out of doors; if a glass frame could be placed over the bed on the approach of frost, it preserves the foliage long enough to ripen the tubers. As a pot plant it is well known.

Oxalis floribunda differs somewhat in habit from the above, but forms a neat bed through the summer and is well adapted for edgings.

Chelone barbata.—This is a showy herbaceous plant, with orange scarlet flowers. Splendens, a more recent variety, is also a plant worth growing. Neither is much known.

BRITISH POMOLOGICAL SOCIETY.

AUGUST 20.—Mr. Hogg in the chair. Nine varieties of early Peaches, arranged according to the order of their ripening, were shown by Mr. Rivers:—1st, Red Nutmeg, end of July; 2nd, Petite Mignonne, first week in August; 3rd, Early York, first week in August; 4th, Early Anne, beginning of August; 5th, Early Grosse Mignonne, second week in August; 6th, Pêche à Bec, middle of August; 7th, Belle de Douay, middle to end of August; 8th, Belle de la Croix, end of August; 9th, Precoce de Savoie, middle to end of August. Fairchild's Early Nectarine also came from Mr. Rivers. Mr. Davies, of Pershore, sent several kinds of Plums. Of Pears, Mr. Rivers brought specimens of Poire Peche (Esperen), showing that it was not an early Pear in this country. Of this we shall have something to say in our next. J. Biggar, Esq., of Maryholm, near Dumfries, sent specimens of a Seedling White Gooseberry, said to possess most of the qualities of the Red Champagne, and to remain on the bush in good condition much longer.

SEPTEMBER 12.—Mr. Hogg in the chair. At this meeting the merits of new varieties of Grapes were tested. In the class of "Muscat flavour" the first prize was awarded to Snow's Muscat Hamburgh, fine bunches of which were exhibited; of these, one weighed $5\frac{1}{2}$ lbs. This kind has black oval berries, quite equal in flavour to the Muscat of Alexandria, and it is said to ripen in an ordinary Vinery, or even a Peach House. In the class of seedlings "without a Muscat flavour" the first prize was awarded to Mr. Busby's Golden Hamburgh, the excellent qualities of which are now pretty well known. Mr. Ivery, of Dorking, showed a seedling related to Sweetwater, large in the bunch, but somewhat unripe; and Mr. Scrutton, of Wandsworth, had another seedling in the way of Black Prince. Both of these we hope to see again in better condition. For little known varieties of Grapes a first prize was awarded to Mr. Fleming, for Trentham Black, a sort highly commended for its excellence. Of other kinds several were exhibited, but all of them were inferior to those just mentioned. In addition to Grapes, there were also Melons, Peaches, Plums, Pears, and Apples shown; of the last Messrs. Paul had a large and interesting collection.

CALENDAR FOR THE MONTH.

Auriculas.—Place these in their winter quarters; gradually withhold water; give plenty of air, and grow them quite hardy, but allow the plants to have no rain.

Azaleas.—Keep these just moist at the roots—never dry or wet. If any of the plants require staking or tying out, the present is a good time to attend to such matters. Young plants that have been growing in hothouses should now be placed in cool houses, that they may have a rest; this will enable them to start with fresh vigour in spring.

Carnations and Picotees.—Never take the layers from the stools for potting when in a wet state; all should, however, be potted as soon as possible, so that there may be plenty of time to harden the plants after drawing root.

Camellias.—Stake and tie up these; syringe occasionally, and keep the soil at roots just moist. Thin the bloom buds if not already done. Give plenty of air.

Cinerarias.—Continue to put in cuttings, and sow seeds for late flowering plants; those that were struck early and potted into small pots will now require a shift into larger, using a mixture of good fibrous loam, with an admixture of leaf-mould and sand. If specimen plants are required, select some of the strongest;—those with two or three shoots are preferable, as they tend to give the greatest surface of flower. Look well to aphid and mildew; fumigate moderately, and sulphur such as require it. Give all the air possible, so as to harden for the coming winter, and protect against early frosts.

Cold Frames.—All plants in pots that require protection in winter ought now to be placed under cover, in anticipation of frost. Tender and half hardy annuals in pots, that are intended for early spring flowering, should now be introduced into cold frames; they should stand on a dry floor, and near the glass; they should have abundance of air, but the lights should always be kept over the plants in wet or damp weather. A great variety of “bedding” plants should be kept in a similar manner. Water should only be given when absolutely necessary. Be careful to cover up well in frosty weather.

Conservatory and Show-house.—Shorten back climbers on rafters, that the plants below may have all the light possible. All the plants should be well cleaned and neatly tied before they are housed. Do not on any account crowd the plants; it is much better to throw away any inferior plants than, by keeping them, to injure valuable specimens. Place all the large plants in flower in prominent places, so that they may be properly seen. A few of the earlier kinds of *Camellias* will now begin to expand their blooms; some of the earlier kinds of *Chrysanthemums* will also be coming into flower; these, with many other things that flower at this season, will, when tastefully arranged, make these houses gay and cheerful. Attend to cleanliness, water when necessary, and ventilate freely in fine weather.

Cucumbers.—Plants in bearing will require slight fires by night; they will also need a moist growing atmosphere. See directions in last month's Calendar.

Dahlias.—Save seed as often as it can be gathered ripe and dry; a long piece of the footstalk should be gathered with it. See that all are correctly named before the frost arrives; also mark promising seedlings.

Flower Garden.—If considerable attention and labour were necessary last month to keep up the gay appearance of the flower garden, how much greater attention and labour will now be required to do so? for, owing to the hot weather of the past summer, many things have done flowering; and we may now daily expect strong winds, or heavy rains, or what is still worse,—a nipping frost. Go daily over the beds, and remove all dead flowers, &c. Roll and mow the grass often: roll the walks frequently, and see they are clear of weeds. Put in plenty of cuttings of all different kinds of bedding plants, and take care to do it ere a sharp frost completely kills them.

Forcing Ground.—Prepare slight hotbeds for salads; sow Mustard and Cress once a week: sow French Beans.

Fruit (hardy).—Continue to gather and store Apples and Pears on fine days; they are ripe earlier than usual this season, owing to the hot summer we have had; ours are remarkably fine this season. After the fruit has been laid in the fruit room for a week or two, it should be carefully examined; the choicer kinds of late Pears, when dry, should be wrapped in paper and placed either in close drawers or large jars; they keep better in this way than when laid on shelves. When proper attention has been paid to disbudding and summer pruning, the wood and buds will now be in the finest possible condition, after the glorious summer just past; the trees promise well for next season. The planting of fruit trees should be proceeded with without loss of time—before wet unfavourable weather sets in; also any pruning that may want doing should be pushed on with all despatch.

Greenhouse (hard-wooded).—All greenhouse plants that have stood out of doors during the summer months should now be safely housed; give them plenty of air in fine weather, but be careful to keep closed, or nearly so, during strong cold winds or frosts. Pay especial attention to the watering at this season. Keep every place as dry and clean as possible. *Soft-wooded*.—These should on no account be crowded, and they should have plenty of air in fine weather, but they must be carefully protected from winds and frosts. Fumigate for green-fly.

Hollyhocks.—Cuttings will now strike readily if a little bottom heat is used; repot those first struck. The stools of choice kinds may be potted up, to produce cuttings during the winter.

Kitchen Garden.—Towards the end of the month take advantage of fine weather to get up and store root crops, such as Carrots, Parsnips, Beet, Salsafy, Scorzonera, &c. Take up late crops of Potatoes. Continue to earth up Celery when dry, and to tie up Endive when dry. Persevere in the destruction of weeds when the ground is dry enough for hoeing. Clear off all decayed vegetables, and keep every place tidy. Plant Lettuces on warm sheltered borders; plant out a good breadth of Cabbages. Plant Cauliflowers under hand-glasses; also some either in frames or on warm sheltered borders to stand over the winter; clean and dress Asparagus beds. Manure and trench or ridge vacant ground; push forward all alterations.

Orchard House.—This should have the most thorough ventilation night and day, which tends greatly to the proper ripening of the wood.

Pinery.—Attend to the autumn and winter crop of fruit; water when necessary, and syringe occasionally. They must have a steady bottom heat of from 80° to 85°, and a nice moist atmosphere. Towards the end of the month, if the weather is cold, slight fires will be required at night. Plants for fruiting next year should now have a drier atmosphere, and abundance of air in fine weather. Keep a moist growing atmosphere, and a good steady bottom heat, to the young stock of plants; give air freely on fine days.

Pinks.—Plant immediately for blooming, choosing fine weather, when the soil is dry. At the end of the month pot up such as are required for wintering in pots.

Pelargoniums.—This is an important season for the management of these plants. All should be housed by this time, if not already done. If the directions given in previous numbers have been attended to, a fine stock of young plants will be the result, some of which will have attained a considerable size. Pinch out the centre of new struck plants, to induce a dwarf and bushy growth; repot as needed, using good turfy loam and well decayed manure, and silver sand, with plenty of drainage. Those plants that are intended to flower early, and have not received their final shift, more especially the specimens that are selected for the early exhibitions, must not be delayed. Water carefully when the plants require it. Shut the house up early in the afternoon, and when the weather is damp and cold a little fire in the evening will be beneficial to the plants. Keep under that great enemy the green-fly, by frequently fumigating. *Fancy varieties* should be kept a little drier as well as a little warmer than the large flowering kinds. But the greatest cleanliness should be observed in the cultivation of all.

Pleasure Grounds.—Commence intended alterations; prosecute with all possible despatch the transplanting of large evergreens. Make preparations, in anticipation of severe weather, to protect tender and valuable trees and shrubs. Attend to all routine matters, such as rolling, mowing, &c.

Stove.—Pay every necessary attention to plants for winter flowering, such as *Justicias*, *Euphorbias*, *Poinsettias*, *Gesneras*, &c. Plants that have done growing will now require very little water; keep the plants clean, and look out well for insects. Plants that are in a state of rest should be kept perfectly dry.

Strawberries for Forcing.—See directions in last month's Calendar.

Tulips.—Prepare beds, so that they may be got in about the 1st of November. Offsets may be planted at the latter end of the present month.

Vinery.—Fires will now be frequently necessary, especially in damp or wet weather, to dry the air in the late houses; give all the air possible in dry weather. Prepare to start the early house towards the middle or end of the month; little or no fire heat will be required for the first three or four weeks, unless in the case of a snow storm or any severe cold frosty weather. Use every possible means to get the Vines to break strong and regularly. Keep up a moist atmosphere, and a night temperature of from 45° to 50°.





Achimenes 'Meteor'
Plate 132.

ACHIMENES "METEOR."

(PLATE 132.)

OF the many interesting hybrids which we have made our readers acquainted with, there has been none more intensely beautiful than Mr. Parsons' Achimenes Meteor, the figure of which, in the present number, is one of Mr. Andrews' happiest delineations. Very many of our readers, however, have doubtless seen it, during the past season, at the great exhibitions. Its foliage is a rich dark glossy green, and its flowers are large and of the greatest brilliancy. It was raised by Mr. Parsons, of Danesbury Park, who writes that "Sir T. Thomas was the parent, fertilised with the pollen of a very fine seedling of the coccinea family, but much larger, and brighter in colour." Mr. P. adds, "My object has been to obtain a bright scarlet of the size and habit of the more common kinds, and, after several years' perseverance, I have so far succeeded."

The Achimenes is too well known as one of our best decorative plants of easy culture to require any praise here; there is now a great variety, of nearly every shade of colour, and many of great excellence. We have so frequently treated upon their culture that we cannot do better than refer our readers to p. 66, in our vol. for 1850; p. 115, in that of 1852; p. 122, in that of 1855; and p. 353, in that of 1856; where all necessary information for the production of the finest specimens can be obtained.

POTATO CULTURE AND DISEASE.

IN answer to many inquiries about the system we recommend for securing the largest return for the trouble and expense this crop entails, we can only inform our readers that we have very little new to communicate. But there are two or three facts in reference to Potato culture which may be useful for some of our readers to know, and which the past season has so far confirmed, that they may be laid down as general rules for our guidance.

The havoc which the disease has made in the crop of the present year, 1857, is sufficiently indicated by the wholesale prices now quoted, viz., 8*l.* per ton for the best samples, and which in some instances that have come to our knowledge have been exceeded. Now, 8*l.* a ton is a trifle over 17*s.* per sack of twelve score pounds, and this, observe, the wholesale price, to which a full one-third must be added before they reach the consumers in large towns. A price like this, which may be termed a prohibitory one to many families, renders it imperative for all

to come forward who have proofs, acquired by their own experience, of the causes of success, partial or otherwise, for complete success is hardly to be expected.

In the first place, respecting sets. We prefer large Potatoes cut into two or more sets, with a couple of eyes in each. Where this trenches into the stock of eating Potatoes too much, we next prefer good sized seed, cutting out all the eyes but two of the strongest, for more shoots than two to a root produce for certain a larger number of small tubers, but the bulk of marketable produce will not be so large.

If possible to prevent it, never allow the Potatoes for planting to grow before planting time. Do not pit them, but keep them rather thin in a shed, barn, or any situation where they can be protected from frost, but in other respects kept as cool as possible. If they show indications of sprouting long before planting time, have the sprouts rubbed off a month previous, that the second buds may be swelled and ready to push again as soon as they are committed to the soil; it makes the crop a fortnight later in coming up when disbudded just at planting time, which is sometimes done.

Sorts to Plant.—Early kinds.—Soden's Early Oxford; Ashleaf Kidney; Red Kidney, an excellent flavoured kind; Golden Dwarf.

Second Earlies.—Lapstone Kidney; Forty-fold; and American Native, called Snowball by some. The first-named is the tenderest, but perhaps the highest-flavoured Potato grown.

Late kinds.—Regents; Flukes; a kind sometimes called Farmer's, or Oxford Reds; and Wellingtons—the latter a rather new kind.

We have named only what we grow ourselves and can vouch for; there are, doubtless, other good kinds in different localities.

Soil.—This must positively be a dry one, to begin with; the least dampness in the soil, whether caused by want of draining—a retentive subsoil not permitting rain-water to pass off freely—or land springs, must be avoided. The best soils we know are dry calcareous or marly loams. On these the Potatoes are always mealy and high-flavoured. Next, sandy loams, on a gravelly or brashy subsoil, permitting the rapid escape of water. Next, any moderate sandy soil which is dry. Clayey soils should not be thought of; nor yet confined, low, or shady places. We again repeat, the exposure should be an open one and the soil dry, with the crop planted in lines running north and south, or near those points.

Next, as to manure. Last month we stated that on lands highly enriched with manure the crop had failed; in so many places do we find this the case, that it may be termed a general one. Still, as even a moderate crop of Potatoes can only be obtained by means of manure, it must be applied, for newly broken up turf ground is equally fatal to the crop as land over manured. Therefore, when *farm-yard* manure must be applied, spread it over the land by February, and allow it to remain on the surface till the ground is further prepared in March, or when the manure is very rank it may be thrown over the land before Christmas; most of its fertilising properties will be washed into the ground, and the remainder will have become sweetened by exposure,

and will become more of the character of a pure vegetable manure. If farm manure can only be applied at planting time, spread it over the surface after planting the crop, in preference to putting it in with the sets, which on no account should be done. The only manures of this kind admissible in the drills with the seed are well decomposed tree leaves, which produce nice clean tubers, or the sweepings of towns and manures collected on public roads, both of which contain a portion of sand and grit in their composition. These are good and safe manures for the Potato.

Never dig in Turnip-greens, Rape, or Tares, as is sometimes done for manure; they keep the ground too cold and damp.

Two cwt. of guano mixed with 2 cwt. of superphosphate, and again with 50 bushels of wood or coal ashes, is a very good application; two-thirds may be applied in the drills at planting time, and the remainder thrown between the rows before earthing them up, and if possible in wet weather. We prefer, however, as *cheaper* and quite as good, if not better manure, 3 cwt. of superphosphate and from 40 to 50 bushels of household soot, per acre. When the soil is much deficient of lime, 4 cwt. of the phosphate may be allowed, to increase the bulk. For equalising this application, we mix with it ashes prepared by burning weeds, hedge trimmings, &c., in the previous summer, which are kept dry for the purpose. We like this dressing best ourselves, and have seen the cleanest and largest crops obtained through it, as we have noticed before. Soot can be obtained at from 8d. to 1s. per bushel in most localities, and is then one of the cheapest manures of its class. Apply as recommended above; two-thirds with the seed, and the remainder between the rows when earthing up. Again: ashes, soot, and artificial manures generally, are best adapted to strong soils; farm-yard manures to lighter ones, which are dry and sandy.

Our reason for not applying all these dressings with the seed is, that should very hot weather follow the entire bulk of soot in the drill might prove too heating. On dry soils one-half only will be sufficient to drill in with the seed, reserving the other half till the plants are some inches high, when it should be spread between the rows, if possible in wet weather, and afterwards just buried with the hoe: the roots of the plant by this time are extending themselves, and this dressing is of the greatest use to them and produces an immediate effect in their appearance; indeed, were it not for taking up too much time, the sets should first be covered an inch deep with soil, and then apply the dressing over the rows, six or eight inches wide, covering it an inch or two deep. The roots of Potatoes are all formed immediately above the old set, and would, when forming, find themselves working amongst the manure—but this can hardly be done on a large scale, though applicable to gardens and allotments.

Planting-time.—Let this be as early as circumstances will permit. March is the most suitable season; from the middle of February to the first week of April are the extremes—the mean between the two, the best. Allow a fair width between the rows; the tops, when full grown, should not touch each other; this will allow the air to circulate freely between the plants. Deep tillage is recommended for two

reasons : one is, that the roots have a larger pasturage : the principal one, however, is that water passes from them more freely, and is therefore less liable to render the crop diseased towards the latter stages of its growth, nor will they suffer so much should dry weather intervene early in the season, and when a rapid growth is essential to the early ripening of the crop. Every care should be taken to keep the crop *forward*, by timely planting, and performing the requisite hoeings and earthing up directly the growth of the plant will permit. Should weeds afterwards make their appearance, remove them by hand, and on no account allow them to make progress towards the end of the season, when the tops begin to decay, as they prevent the sun and air from acting on the leaves of the plant, and, indeed, help the disease to spread itself.

With the above precautionary means the crop of late Potatoes will have nearly attained their full size by August—about the time the disease attacks the crop—and will therefore be prepared to withstand its effects. Even should the tops become attacked, there will be sufficient vitality in them to finish the ripening process. Do not dig them sooner than the middle of September, as they will keep better from being well matured in the ground, and taking them up offers no immunity from the disease—as some suppose—neither will cutting off the tops, when attacked, do so ; on the contrary, it prevents in a measure the ripening process, and the roots eat close and waxy, and do not keep so well.

If possible, take up the crop only in dry weather, and pit them immediately. Narrow pits in a dry situation are best, covered with clean straw and earthed up each day, all being done in dry weather. When the crop is stored in large quantities together they heat, and if there is any latent disease in the roots it will spread and rot them ; this, and pitting the crop when wet, are the two principal causes of the Potato rotting in the pits.

Nothing in the shape of cultivation will entirely prevent the disease ; but the above hints, deduced from long observation and experience, will, we believe, do all that can be done towards securing a fair return. Even this present year, so disastrous generally, *good* crops have been obtained by following these instructions ; whereas, all but universal failure has attended the planting of Potatoes on unfavourable soils and situations.

EARLY PEARS.

IN reading the report of the Pomological Society, in the last number of the *Florist*, I was struck with the remarks on the Poire Pêche. The words “Not an early Pear,” were not well chosen, for it is not a late Pear, and then came the question, what is an Early Pear ? A late Pear is pretty well defined, for we all think of February and March when we talk of late Pears ; but, according to our present definition, an early Pear is one that ripens from the end of July till the middle or perhaps the end of September. I must however add that, although I believe this is the general idea, I have in my own mind confined the

term to Pears that ripen from the end of July till the end of August; but we require some terms to denote the seasons of Pears more satisfactory and more definite than those hitherto employed; with your assistance, and that of your correspondents, let us endeavour to form terms to divide the seasons as applied to Pears: this, I think, will be better than giving particular months as their seasons of ripening, for the range is often very wide—more so than usual this season. Cannot we, therefore, call those that ripen in July and August, Summer Pears; those ripening in September, Early Autumn Pears; those for October and November, Autumn Pears; those in season in December, and January, Winter Pears; those that ripen after January, and they are then remarkably precarious as to their ripening, Spring Pears? I fear this first attempt at classifying Pears, as regards their periods of ripening, is not very satisfactory; but I look to our friends for assistance, for the terms “early” and “late” do not appear quite up to the wants of the present day.

While on the subject of Pears, I may perhaps be allowed a few words on the variations that often take place in their seasons of ripening from the change of climate. Varieties that in the warmer parts of France can be preserved in perfection till late in spring often ripen here in December; and again, varieties that are Summer Pears (to employ my term) in France and Belgium, become here, after two or three seasons, Early Autumn, or Autumn Pears. The fruit of *Beurré Superfin*, one of the most delicious Pears known, when first introduced, some six or seven years since, ripened on the trees early in September; latterly, they have kept well till November. The *Poire Pêche*, which I introduced about the same time, ripened at first in August on the trees, but latterly (and even the past warm season), it has not ripened till the middle of September, when *Beurré d'Amanlis*, *Williams's Bon Chretien*, and others were in season; it is a most juicy, sugary Pear, very handsome, and a most abundant bearer. As an August Pear I at first thought highly of it; but not proving so early as I at first anticipated, and finding no peculiar aroma, which its name of “Peach Pear” would lead one to expect, I have not lately cultivated it to the extent I used to do; perhaps, though, its raiser (the late Major *Esperen*) might have given it the name from its resemblance to a Peach in size and form, for when fully ripe and well grown it is a very handsome Pear. The *Beurré Giffart*, a most delicious Summer Pear, which generally ripens in August just after *Citron des Carmes*, was not fully ripe this season till quite the end of the month. There is, indeed, no end to the vagaries of Pears, which perhaps are more interesting to witness than to read about.

THOS. RIVERS.

HIPPEASTRUMS.

It really appears matter for surprise, if not of extreme regret, that this noble and showy division of the order *Amaryllidaceæ* should so seldom be met with in the plant houses and conservatories of the

wealthy, where multitudes of plants infinitely less brilliant and pleasing in their colours are to be found. Even less seldom do we find them exhibited at the metropolitan shows; and further, how few nurserymen are to be found who regard them worthy of general cultivation.

We believe that Messrs. Garaway and Mayes, of the Bristol nurseries, are the largest growers of this class of bulbs, Mr. Mayes having devoted much time, combined with unceasing perseverance, in hybridising and improving the race, the result of which has been an immense accession of new and very beautifully distinct varieties. It was there, in the year 1835, that the fine old Ackermanni originated; and still more recently one called Ackermanni pulcherrimum, producing scapes about 2 feet in height, surmounted with flowers of an intensity of colour almost indescribable, together with many other fine varieties too numerous to particularise within the limits of this article.

Amaryllids, when in flower, are admirably adapted for the decoration of conservatories, drawing-rooms, &c., or, in fact, any structure where a minimum temperature of 55° Fah. can be maintained, and in such situations they will remain in flower for a considerable period, and if intermixed or associated with Ferns, or other fine foliaged plants, the effect is at once varied and striking, bespeaking them eminently worthy of more extended cultivation than they have hitherto received.

The whole of this interesting genus are bulbous-rooted, producing chiefly ensiform leaves, some of which are of a lively green colour, whilst other varieties are more or less tinged with brown or amber. They are perpetuated by means of offsets, which some varieties readily produce around the principal bulb, while others are less inclined to subscribe to this kind of multiplication. These offsets should be removed previous to the principal one starting into growth, and potted into 60's pots in soil composed of equal portions of sandy loam and leaf soil. A pit where a brisk bottom heat is at command, with a proportional top heat, will be the proper situation for their cultivation. Keep them dry at root until symptoms of growth are shown, at which time they will bear a little water at the root and an occasional syringing over head. At the expiration of five or six weeks they will have made good growth, provided all is well, and will now require a shift into well-drained 48's pots, in soil composed of two-thirds sandy loam and one-third leaf soil, keeping them moderately dry until they begin to root. The temperature of the pit should average about 60° or 65° by night, with an increase of 10° or 15° by sun heat. Give plenty of air, keeping the plants as close to the glass as possible. When their season of rest arrives, which is indicated by the gradual change of colour in the leaf, water should be gradually withheld, at the same time discontinuing syringing. As the bulbs present evident signs of torpidity, remove them to any structure where the atmosphere is comparatively dry and warm—a too cold, damp situation being injurious to bulbs.

We now come to the second season's management, which in many points agrees with that of the first. About the latter end of January or beginning of February get the bulbs re-surfaced or top-dressed, after which they should be removed to the pit or house assigned for their reception. Give plenty of air and little water, with a temperature

not exceeding 55° for the first fortnight, after which it may be raised to 60° or 65° Fah. When the foliage is tolerably well developed they may be removed from the pots they then occupy to others one size larger, and potted in good turfy loam; if very adhesive, a portion of sharp sand may be added. Keep them moderately close after shifting, occasionally syringing or damping the absorbent surfaces of the structure, to generate sufficient moisture to prevent flagging. Little or no water should be given at the root until they have taken hold of the soil, when they will require to be liberally supplied. The administration of liquid manure from this period tends greatly to facilitate the development of foliage to its fullest extent, on which depends the rapid accumulation of cellular matter, and consequent enlargement of bulb.

Keep them growing the whole of the season with as little check as possible, and when the leaves appear to have *nearly* ceased to perform the necessary functions assigned to them the plants may be removed to the foot of a south wall (and placed upon coal ashes or other material to prevent the ingress of worms), in order to thoroughly ripen and consolidate the nutritive matter secreted in the bulb during its season of active vitality. When this is accomplished their removal to winter quarters should not be delayed.

During the succeeding season many of the larger bulbs may be expected to produce flowers, and if a few bulbs at a time are gradually introduced into heat a succession of bloom may be maintained for some considerable time. After blooming, give them a good chance to make their growth and recover their wonted vigour; when this is completed nothing remains but to ripen the bulb, as previously recommended.

As regards sorts, the following selection will be found to embrace a portion of the best and showiest of *Hippeastrums* :—

- | | |
|-------------------------|----------------------------|
| 1. Ackermanni | 7. Intermixtum latipetalum |
| 2. „ pulcherrimum | 8. Lineatum |
| 3. Aulicum platypetalum | 9. Magnificum perfectum |
| 4. Ætna | 10. Marginatum conspicuum |
| 5. Delicatum | 11. „ venustum |
| 6. Elegans | 12. Psittacinum vittatum |

Devon.

H. M. CLEVELANDS.

SOMERLEYTON PARK, SUFFOLK.

A SHORT distance inland from Lowestoffe, on the Suffolk coast, is Somerleyton Park, the seat of Sir S. Morton Peto, Bart. On travelling by rail to the Somerleyton station from Norwich, the line runs for some distance nearly parallel with the river Yare, and on approaching Lowestoffe with the Waveny—both traversing a tract of marshy ground which a few years since was a complete morass, but since the opening of the railway from Norwich to Lowestoffe and Yarmouth the greater part has been reclaimed and brought into cultivation, principally as meadow land. We had no opportunity of examining the soil composing this extensive flat, but at some time or other the sea must have reached nearly if not quite up to Norwich. It is, no doubt, a rich

diluvium, formed of sand mixed with finely divided clay and chalk washed from the upland grounds surrounding it, and vegetable matter partly drifted from the higher parts of the valley during floods, and partly grown and decomposed on the spot during the period of filling up. We need scarcely remind our readers that such soils are invariably rich, and when drained form some of the most fertile land in the kingdom; and judging from the rich verdure of portions of meadow, visible from the line, better drained than the rest, this will possess the same fertility when once the water has been drained from it, when it will make a first-rate soil, not only for agricultural but horticultural purposes—one reason why we notice it so much at length.

Somerleyton, since it came into the possession of Sir Morton Peto, has undergone a complete remodelling. On proceeding from the station, this is soon visible in the fences and hedges adjoining the road; and on reaching the village of Somerleyton, the clusters of picturesque cottages spread over the village in well-arranged groups, with their high gables and ornamental chimney shafts, gratified us as much by witnessing how considerately the comforts and conveniences of the inmates had been provided for by the in-door arrangements of the various styles of cottages, as their well-kept gardens, where the *useful* was not altogether sacrificed to the *ornamental*, for we noticed an ample supply of vegetables in each, besides a gay assortment of showy flowers, and the walls were crowded with masses of gay Roses, Honeysuckles, and Jasmynes. Nor must we omit mentioning that nearly every cottage garden had its store of bees in neatly kept hives.

The mansion is no great distance from the village, and this too has undergone great alterations and additions. From being originally a plain brick edifice, it is now an imposing building in the Romanesque style, richly decorated, and having a noble portico in the centre of the garden front, surmounted by a lofty campanile tower. Immediately opposite this portico is the flower-garden—a design by Nesfield—laid out in a sunk panel. The design is laid down on white gravel, with massive Box edgings to the various scrolls and beds. The white gravel forms a good contrast to the dark green of the Box, and brings out the figures in bold relief; altogether the effect is very good, the design possessing more breadth and boldness than we usually see in Nesfield's designs. The beds were exceedingly well arranged as to colour, and although our visit was made so late as the first week in October the garden had still a gay appearance. Two large beds of the old Geranium *Diadematum erubescens* were still very gay, with their rich rosy purple blooms, and Mr. Bradley informed us they had been in full bloom since June; from what we saw of it, here and elsewhere, we are very much disposed to pronounce it the best bedding Geranium of its class, as it possesses a neat close-growing habit, with dark green foliage, and blooms abundantly throughout the season. Kentish Hero *Calceolaria* was also in fine condition, and makes a rich looking orange coloured bed, and, like the Geranium, blooms on till near Christmas.

Beyond this panel garden is a geometrical lawn, separated from the park by a retaining wall surmounted by a very ornate balustrading: a large equatorial dial, on a richly carved marble pedestal, occupies the

centre. This lawn is embellished with numerous vases, statues, &c., interspersed with Irish Yews and Junipers, Yuccas, and some groups of low growing evergreen shrubs. We have long advocated this style, both as affording a variety of the geometrical style of gardening, and also as forming a connecting link between the parterre proper and the ordinary dressed grounds of a mansion. At Somerleyton the situation is a very happy one, and nothing can be more in keeping or appropriate than this lawn, uniting as it does the flower-garden and winter-garden (of which we shall have to speak presently) with the rest of the grounds and kitchen-garden.

Abutting on the left wing of the mansion—as seen from this lawn—is the *winter-garden*, a unique conservatory of great extent, and intended, as its name implies, to afford to the family all the enjoyments and comforts of a garden in all weathers, more particularly during the winter season: it may be said to form a part of the mansion, as the drawing-room door opens into it. The building is 126 ft. long by 96 ft. wide, and 20 ft. high, with a ridge and furrow roof, and a circular dome in the centre. The roof is supported by iron pillars, and a profusion of climbing plants are trained beneath. We were much pleased with the manner Mr. Breadley manages these; for, while kept within certain limits as to extent, they are allowed to grow as naturally as the situation permits, and the very graceful manner in which they spread themselves on the roof trellises, and arch over the paths, contributes in no small degree to preserve the appearance of natural growth which with these, as in the other plants and their arrangements, constitutes the great charm of the place. A large fountain occupies the centre of the building, under the dome. The base of the column is very artistically made to imitate a natural rock-work, and is planted with a variety of Ferns and Lycopods. While deprecating the introduction generally of grottos and rustic fountains in conservatories, &c., we confess to an appropriateness of design in the present instance, in unison with everything around it, which leaves no room for comment. The house contained a miscellaneous collection of plants, both planted out and arranged in pots, vases, &c., as the object is chiefly, we presume, to present as much change and variety as possible, according to the season of the year, and hence the great advantage of having sufficient space to introduce plants at pleasure, and to effect any alteration in their arrangement circumstances may dictate. At the time of our visit the air was redolent of Heliotrope, Jasmine, and many other fragrant plants, which are changed to suit the different seasons; for instance, during winter, Sweetbriars, Violets, Primroses, the spice-scented Chimonanthus, &c., are largely introduced; followed by forced Lilacs, Hawthorns, Honeysuckles, Jonquils, &c.; and so on with other plants as the season advances. Nothing that we had previously seen so completely realised the idea to one's mind as to what buildings of this kind should be, and when lighted up for the reception of company in the evening, particularly during winter, it must form a delightful promenade, and almost reminds us of "a thing to dream of, not to see." The whole interior is fitted up with great taste and elegance, and was in the best order and keeping.

(To be continued.)

their reach, and a great many perish. With such disadvantages, nothing but an inveterate love of the flower would enable one to attempt their growth, and in so doing I resort to plans which at first sight seem absurd, but which, at any rate, secure to me some bloom, and save my plants from utter extinction. I have running down each side of my centre walk a row of standards not more than $2\frac{1}{2}$ feet high; these are treated in the ordinary way, and being tolerably hardy kinds weather the storm pretty well; in front of these, I have two rows of dwarf plants, and with them I adopt a somewhat peculiar mode of treatment,—in fact, that which is recommended in exposed districts for Tea Roses. I take them all up in the autumn, and pot them, whether they be Hybrid Perpetuals or Bourbons; the stuff into which they are put is tolerably good, with a liberal admixture of road grit, in which they put forth fresh roots well; they are then put into a pit, or (as I intend to try this winter) a straw frame, and secured from very violent weather and severe frost. In the spring they are taken out, some of the stuff shaken off, repotted into somewhat larger pots, cut down, and encouraged to grow, still being kept in shelter. As they push for bloom a few are brought into the greenhouse to expand their beauties. After they have bloomed, and when our sirocco is over, they are then turned out into the border; here they soon begin to grow again, and from these I generally have a much better second bloom than from those which have remained out all the year. Of course, I do not get very large plants, and (perhaps on the principle of the fox who lost his tail), I do not want them, for there would be no room for them in my small plot. I may thus perhaps have five dozen Roses in pots in the earlier part of the season, entailing of course a good deal of trouble, but compensating me, I think, by the certainty of bloom. A very round-about way perhaps some of your readers will think; all I can say is, if they wish to try their hand at growing Roses in such an aspect as ours they must try some such plan, and I am not quite sure whether even in more favoured localities it would not be desirable to grow a few thus.

II. And now *the Sorts to Grow*.—And here, alas! what perplexity, what various opinions, what contradictory statements! One grower sends in a list of the best—another does the same; yet how opposite. Look at the catalogues, too; what different estimates the growers form of the various kinds. How elaborately new sorts are puffed off in 1854 to be dropped out of the list altogether in 1856. How disappointing to pay five shillings for a Rose on some grower's recommendation, and then be obliged to confess that you have been "done." Whence arises this diversity? is it want of judgment; or does it arise from ignorance, or from dishonesty? No, I think not, but from the following causes:—

I. *Some Roses answer in one locality but not in another*.—I will give an instance of this. In Mr. Rivers' list, La Quintinie (Bourbon) is mentioned as very delicate, and I have no doubt he so finds it; this character has deterred many from purchasing it, knowing by experience what a scrubby thing a delicate Bourbon is; but I saw it this year at Hollamby's nursery, at Tunbridge Wells, as vigorous as any Bourbon

need be, and a beauteous gem it is. Then, again, I have had General Castellane, H.P., three or four times, and have always lost it; but at my friend Mr. Cattell's, of Westerham, I have seen fine strong vigorous plants of it, and so have the plants been that I have got from him, but they have all dwindled away and died here.

2. *They vary much according to the character of the season.*—A Rose which is indifferent this year, and which you feel inclined to discard, astonishes you next year by its beauty; while, on the other hand, one that you have thought highly of proves to be worthless on further trial. Thus, last year I had Louise Odier poor and thin in the extreme, very little better than the Celine; my idea at one time was to discard it; however, I let it alone, and this year it has been very beautiful, full, and brilliant in colour. Had I measured, on the other hand, my old friend Géant by his performances this year I should have pronounced him but a poor leader, for the intense heat completely took away all his brilliant colour; and, again, I have grown for some two or three years Leon des Combats, but I never saw in it anything remarkable, whereas this year it has been especially beautiful. I do not think this is sufficiently borne in mind by amateurs; they do not wait to prove their flowers, and pronounce them worthless, when another season would perhaps make them alter their opinion.

3. *And then there is the insatiable craving for novelties.*—Have you got any *new* Roses, is the first question put to a nurseryman; if he say no, you at once set him down as behindhand; if, on the other hand, he shows you some, how readily do you overlook many blemishes because they are new; you persuade yourself that they must be much better than the older varieties; you buy them, and after, when better and cooler judgment returns, you find that you have foolishly preferred a new to an old face—a fault not confined to Rose growers.

The subject of sorts I find I must postpone, merely saying for those who are looking out for new kinds, that I do not think Mathurin Regnier, Triomphe de l'Exposition, and Triomphe d'Avranches will belie their character.

As to operations for November I have not much to say. The garden will generally be required to be cleared off of its old bedding stuff, weeds, &c. The greenhouse to be opened every day, and damp carefully guarded against. Auriculas will require but little water, and plenty of air. Pansies, Picotees, and Carnations to be treated in the same way. Chrysanthemums will be in bloom, and keeping up one's interest in flowers; after blooming they will want to be cut down and put into a sheltered place. Turkey Ranunculus and single Anemones may now be planted. Herbaceous plants divided, and, if required, some potted. Japan Lilies, and bulbs of all sorts, should be in their winter quarters. The garden becomes less inviting every day, but if we take care of its delicate inmates they will reward us by and bye with an abundant bloom.

Deal, October 19, 1857.

D.

NOTES ON AUTUMN PLANTING.

NOVEMBER is the busiest month in the year to the planter; it is then that all his unfinished schemes of last spring have to be matured, and whatever else has turned up during the summer put in execution.

To the amateur about planting wall-fruit trees, we repeat, plant only in sound loam. Shallow borders, 18 inches deep, on a good drainage, will not disappoint you. Generally speaking, fruit tree borders are too deep and rich; you can easily add to a shallow border, elevate the trees a little, and merely tack them to the wall, deferring pruning till spring. Peaches, Apricots (these latter want as dry a soil, if not more so, than the Peach), and a few Plums, should have your best aspects. Plant Pears on east and west walls, in similar strong loam, no matter how strong, provided you can get 12 or 18 inches of good drainage below them, which is the great secret. Cherries are hardly worth a wall to the amateur. Plums are much more useful, and these, with a Morello Cherry or two, for a "*bonne bouche*" on a winter's day, may occupy the north aspects. Plant Raspberries in your deepest land, well trenched and manured. Gooseberries and Currants in good rich land, and if dry and poor, you must not spare a good dressing, before planting, of rotten cow-dung.

There are one or two Plums every one should grow, and they are Denyer's Victoria and Coe's Golden Drop; both are hardy, bear freely and regularly, and are invaluable in our opinion. The much praised Jefferson is greatly inferior to Coe's, which we find does well even on a north wall. In our almost daily rides in the country, we often wonder why it is that our farm-houses and their outbuildings, as well as cottages, are not more generally covered with fruit trees. What fine situations for such Pears as the finer Beurrés, Marie Louise, Glou Morceau, or a Doyenne. We now and then see a Crassane or Jargonelle against a farm-house, but never did I see one of those new Pears now to be had in every country nursery, and yet many of my good neighbours, Farmer So-and-so, enjoy immensely a Beurré Bosc or Marie Louise, when occasionally calling on me. Where the blame or neglect rests I know not. If the Squire's gardener would take the matter up, buy 200 or 300 trees of approved sorts, and select the sites, the thing might be done, and the cost settled between the landlord and tenant at rent-day. Exactly, we have just thought of it. Where is the Pomological Society, who we thought was to take this business and orchard planting in earnest? Surely, the young society which started with such a favourable field has lost its way, or "is sleeping and must needs be awakened," for lately I have heard nothing of it.

G. F.

[We fear our correspondent has not informed himself of the proceedings of the Pomological Society, or has been misinformed by others. He had better become a member, when he can judge for himself. Shall we propose him? We are happy to say the Society is in full activity.]

THE PINE-APPLE.

(Continued from page 172.)

Soil for Potting.—Tolerable Pines can be obtained in a variety of soils, but they grow more freely in some than others; so I may as well particularise one or two. The best is that obtained by paring off the turf three or four inches thick from dry, heathy pasture land: this should be of a moderate texture, not too strong and clayey, nor yet too sandy; and if of a red or yellowish colour, and with a soapy touch when handled, you may be sure it is all right. Good Pine soil is also to be met with on the sides of hills and rocky situations, where it is shallow in depth and full of roots and fibre; they will, too, thrive well in good turfy peat. To sum up, it is necessary with Pines, as with other plants growing in pots, to provide a turfy soil for them; for the reason that such soils containing a quantity of fibrous matter in the shape of roots, are always sufficiently open to permit water to pass freely through, and their decay furnishes a supply of food for the plants to feed on. It is not always easy to obtain pure turfy loam of the proper quality and consistence. In some localities near towns as much as a guinea is asked for a cart-load, and at that price it becomes a consideration whether a substitute cannot be found. I have myself been compelled to use a loam entirely destitute of fibrous roots—in fact, a kind of brick earth—and in other cases a loose crumbly marl; those I mixed with cut chaff, made from clean wheat straw (such as is cut up for cattle), and fresh horse droppings rubbed through a coarse sieve, to the extent of one-sixth of the bulk. I also added charcoal, broken small, and burnt clay, with a little soot. I confess, with all my partiality for half-rotten turf, that I have grown quite as good Pines in this compost as in the turf. I therefore give it as a substitute when the turfy loam cannot be obtained, but it requires some little trouble in mixing to get it sufficiently porous without overdoing it.

If turf can be had, pare it in dry weather and stack it up, also dry, and when half rotten it is fit for potting. If from old pasture, and moderately heavy, I use it alone, merely sprinkling a little soot over it before using it. To heavier loams I add a little charcoal dust; and lighter ones, if considered too poor, are treated to half a peck of superphosphate of lime, or blood manure; for two barrowfuls of compost I find this amply sufficient, and much prefer it to mixing manures of all kinds with the compost, which only get sour, run into a mass, and destroy the porosity of soil, besides adding to the Pine-grower's troubles by filling the pots with worms. Pines root much more freely in simple composts, for my clay mixture (as I used to call it) is not one liable to become sour and close; and whatever nourishment they may require can be supplied by liquid manure; but even this, to the extent given by some growers, I do not approve of. Pure sweet compost, and clean soft water, with, above all things, a *uniform* bottom-heat, are all that is really necessary for growing fine fruit, supposing your house a suitable one for the purpose.

As my directions are intended for the amateur, I have been more

particular about soils than I otherwise should, from having frequently found them in a *fix* about composts, and compounding all sorts of stuff together, with the idea that Pines would not grow unless you give them some seven or eight different kinds of soils and manures mixed together, and made especially rich and forcing, as they termed it. I need not inform the practised grower the reason why, when this mass of compost becomes exposed to the bottom heat of the bed, and has been watered once or twice, it is quite unfit for the roots of any plant to grow in, because he would know beforehand the result; but it is to save amateurs some loss and disappointment that I warn him against the evil of using different mixtures for potting any kind of plants.

Potting the Plants.—As before observed, the soil must be dry, for we shall have to make it very firm; if at all damp it will shrink after the plants are potted, and leave a space between the ball and sides of the pots; the water will not pass so regularly through the ball as when the soil has been dry; for myself I do not care how dry the compost is, feeling persuaded that for all pot-work the drier the soil the better is the job done, and I may add the better the plants grow.

ON SEWAGE MANURES.

THE preservation of manures becomes more necessary every day, and I think it a subject fit for your pages. I know from experience the difficulty there is in buying manure; and small holders of land, as allotment tenants and cottiers, have great difficulty in growing their Potatoes, &c., in consequence. Those who have more means and larger gardens cannot always afford to go to the stable or cow-yard for manure wanted for growing farm crops. Peruvian guano is too high in price for people who are gardening for fancy not for a livelihood, and many of the other artificial manures offered for sale are very inferior to common manure—some all but worthless; it behoves us, then, to see how far we are taking care of that we make ourselves, and learn to apply it on right principles. The waste of sewage manures, or such manures as are made by every family, is almost universal, and yet this one item would, if applied to the soil, increase our produce immensely, and render us independent of foreign manures, as every pound saved in the purchase of foreign fertilisers represents so much capital saved to the country; and as every increase of the produce of the soil is also adding to our resources and wealth, it follows that the preservation of any kind of manure hitherto wasted is of national as well as individual importance, and is a question more especially worth considering by landowners as well as land occupiers.

My object is to direct the attention of both parties to the means of preserving the contents of their closets and sewage manure, so as to make it available for manuring crops. It is now an ascertained fact that sewage manure (by which is meant the waste water which flows from every house both from cooking and cleansing operations, added to the contents of closets, &c.), cannot be profitably treated in any way

to convert the fertilising matter it contains into a solid form; and that, if made use of at all, it must be in a liquid state. The question therefore remains, how can it be economically collected and preserved? for I am of opinion that, this once secured, a valuable assistance to cultivation would be given, and a material turned to good account—now in too many instances suffered to go to waste.

It cannot be supposed that cottiers or tenants at will of larger holdings could construct the necessary tanks and drains for the purpose; but the landlord of every house should do so, and the cost of construction might be charged on the rent at so many years' purchase, as is usual in other cases. I am of opinion that this would be freely paid, as the annual interest of the first cost of construction would be small, and the advantages to the holder very great. Where cottages adjoin each other, a tank might be constructed with divisions to hold the contents of three or four dwellings, and single tanks for isolated dwellings. The area of each tank should bear some proportion to the quantity of fluids which would flow into them in a given time. The tanks should be arched over and made water-tight, and built in the most convenient place for receiving the drains conveying the waste water from the house, and which should be made to flow through the closet, carrying the whole to the tank, in which a cast-iron pump should be fixed, and also a gauge to measure the height of the sewage inside, that it may be emptied before quite full.

The application of this liquid should take place, whenever practicable, in showery, or at any rate during dull weather; the effluvium arising from using it may sometimes be offensive, but it soon disperses; and if applied in the evening but little of it will be perceived by the morning; the application will in nearly all instances save the use of manures; applied to every kind of growing crop it will promote a rapid and luxuriant growth; and during winter land intended for cropping in the spring should be well watered with it. I know that half an acre of land has been for several years kept in high cultivation by the contents of a small tank. Those who use it on a large scale may apply it by the liquid manure cart and drill, but those with smaller means must use water barrows or the common garden pot. The vessel in which it is conveyed should be covered.

To the cultivator of flowering plants this kind of feeding presents itself favourably, promoting a fine clean growth and abundance of flower, as it may be applied only when necessary, after the plants have formed bloom buds, when it enables them to bloom in great perfection, and keeps them a long time in flower. It has been a general opinion that the luxuriant growth of a plant and its abundant blooming are antagonistic, and can only be obtained by the individual application of liquid manure; for if the latter is applied to the soil in the first instance, rapid growth, it is true, is obtained, but frequently the plant exhausts itself in growing, and does not show for bloom or produce it freely; whereas let plants first be grown in a poorer soil till they show indications of blooming, and then apply liquid manure to bring them out. For fruit trees it is equally valuable. Pears do not always come to their full size in this climate; they do so on the continent. Let

them be planted in a warm and dry situation, exposed to the full sun, and in a shallow porous soil, and after the fruit is set commence applying liquid manure freely till August or September, and if you do not over-crop your trees (and where very fine fruit is obtained abroad a thin crop only is allowed) you will find them swell to a large size. I am further of opinion, from proofs obtained in my own garden, that the very finest French Pears may be produced in England equal to the Parisian ones, by planting the trees on poor gravelly soils, hot and dry, and supplying them during the growing season with sewage manure. So satisfied am I of the great use that may be made of household sewage, that at the risk of being thought tedious, I have stated my views at so great a length. The constituents of London sewage consist of 102 grains per imperial gallon of solid matter, the value of which, supposing it separated and sold as a solid manure, would be about £6 per ton, relatively to guano at £11; but it has been proved by analysis that six-sevenths of the fertilising properties of sewage are held in solution, an evident proof that, to make the most of it, it must be applied as it is found. The sewage from country places and single dwellings will of course differ largely from the above; less mineral matter will be found, and on the whole it may be pronounced richer in fertilising agents.

I hope this brief allusion to an important subject may obtain some attention.

C. G. F.

BEAUPORT, NEAR BATTLE,

THE SEAT OF SIR CHARLES LAMB, BART.

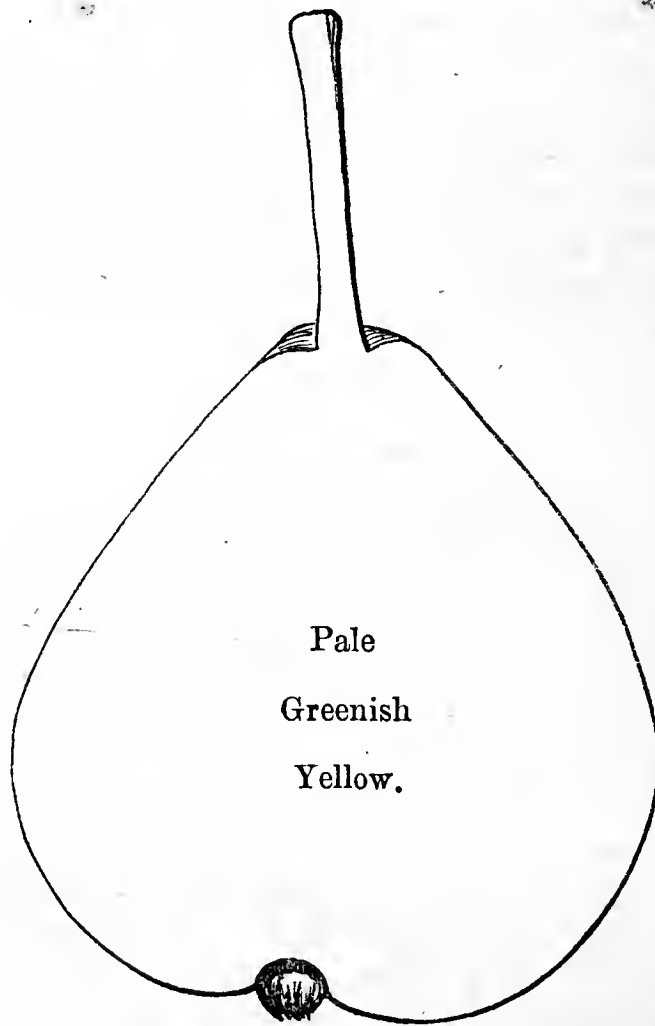
AWAY on the Sussex Coast, beyond Tunbridge Wells, lie both Battle and Hastings, the latter a little sea-side town, which has taken to itself a partner in pretty St. Leonards-on-the-Sea. About half-way between Battle and Hastings is Beauport, a second Dropmore, where rare Conifers luxuriate in abundance. Near the mansion are superb specimens of Araucarias, Abies Deodara, and other Pines; and there is no difficulty whatever in finding hundreds of Araucarias alone, about the park, if the visitor can only spare sufficient time—a few days—for the purpose. Our visit there was of very short duration, much too brief for enjoying a close inspection of the place, as the park and woods extend over a great tract of country. Sir C. Lamb has devoted very considerable attention to the planting of recently introduced Coniferous plants, and we noticed several fine examples of *Wellingtonia gigantea* succeeding admirably. On some future occasion we hope to be in a position to give further details respecting the Conifers at Beauport, and at present confine our remarks only to pointing out the position of a place that will some day be ranked with Dropmore and Elvaston.

NEW PEAR.

POIRE PECHE (ESPEREN.)

THIS excellent new Pear has of late been introduced from the continent ; and I am not aware if it has fruited in the country before the present season. With us it has proved excellent, and appears likely to suit our climate.

The fruit is large, mostly of a turbinate figure (for that here represented we are indebted to the *Gardeners' Chronicle*), regular in outline, and smooth in surface. The skin is clear lemon, partially covered with



flakes of cinnamon russet, more especially near the stalk, and dotted thinly with russet specks ; and when fully exposed to the sun it has a lively red cheek, beautifully mottled with yellow and brown. The eye is a little sunk, and closed by short blunt calyx stalk about half an inch long, and inserted without a cavity. The flesh is yellowish white, perfectly melting, very juicy, saccharine, and rich, with a slight musky flavour. It is an excellent September Pear ; soon decays when ripe.

The tree is of strong and healthy habit, and promises to be a fruitful kind.

Frogmore.

J. POWELL.

HORTICULTURAL SOCIETY.

THE grand exhibition of fruit, held under the auspices of this society, at Willis's rooms, on the 24th ult., not only more than realised the most sanguine expectations that could possibly have been formed of it, but in some respects greatly surpassed all previous displays of the kind that have ever before been witnessed, even in the neighbourhood of London. In the principal room two immense tables were literally loaded with the very choicest productions which English gardens could furnish at this season of the year. These were tastefully set out for competition, while in another large room were arranged such subjects as were contributed for exhibition only. Among the latter was an extensive and most interesting collection of Gourds from Messrs. Lee, of Hammersmith. These were of all sizes and colours, which, together with their grotesque forms, rendered them objects of general admiration. Exhibitions of this kind also came from other growers. Among other matters, not for competition, were large collections of Apples, from Ribston Park and Stourton, sent by our excellent correspondents, Messrs. Saul and Abbott. These contained some fine examples of Ribston Pippin, and other kinds, all excellent specimens of hardy fruit culture. Messrs. Paul and Rivers both contributed highly interesting collections of Pears. Those from Mr. Rivers especially included some new varieties, of which we hope to give some account hereafter. They were from dwarf bushes, on Quince stocks, and many of them were really very fine.

But let us return to the principal exhibition room. Here were wonderful collections of fruit, from Messrs. Webber & Solomon. The White Colville Apples, and Belle Angervine Pears, from the latter, for size, were most remarkable. Some of the Apples weighed 1 lb. each, and the Pears 2 lbs. each. A collection of Pears, of French growth, came from Nantes, but with the exception, perhaps, of some large Beurré Diels, few of the fruit contained in it were first-rate. Inferior to these, however, was a display of Pears, of American growth, from Messrs. Hovey, of Boston. They were bruised and injured from travelling, but independently of that they were, individually, small and poor, especially when compared with the fine English fruit which everywhere surrounded them, and with which they formed a sorry contrast. This, however, has, we believe, been a bad year for fruit in America. Of transatlantic Apples, furnished by the same growers, we can, however, speak in more favourable terms. The Rhode Island Greening, and the Baldwin, upon being cut, were found to be first-rate. The former especially, though somewhat unpromising in appearance, is crisp, juicy, and most agreeable to the taste, and the same may also be said of the Baldwin. While speaking of Apples remarkable for fine flavour we must not omit to mention that Cox's Orange Pippin, an English variety, which has already been described in Mr. Powell's articles on fruits in our pages, was found, in this instance, to completely beat the Ribston in this particular. It is medium sized, with a yellowish firm flesh, and in the class of single dishes well deserved the first prize which was awarded it. Two fine dishes of Ribston bore no comparison with it in point of flavour. Among

Apples were some magnificent specimens ; of these, *Mère de Menage* stood in the first rank, and, on account of its high colour, attracted especial attention. The fruit of this kind exhibited were reported to have been grown on espaliers, in Staffordshire, and to have been supported on little tables, so as to keep their own weight from breaking them off the tree. Of Hollandbury, Dumelow's Seedling, Golden Noble, Alfriston, Alexander, there were also some magnificent fruit. Mr. Snow's admirable collection of twelve sorts, which gained the first prize, consisted of the following kinds, viz., Old Golden Pippin, Fearn's Pippin, Blenheim Pippin, Normanton Pippin, Court Pendu Plat, Scarlet Nonpareil, Bull's Golden Reinette, Spanish Pearmain, Selina, Golden Noble, Royal Russet, and Hanwell Souring. Mr. Harrison, of Weybridge, also showed beautiful examples of fruits, from that part of Surrey.

Among Pears, by far the best came from the Royal Gardens at Frogmore. To unusual size these added perfect ripeness and beauty of colour. *Marie Louise*, *Beurré Diel*, *Duchesse d'Angoulême*, and similar sorts, were truly magnificent; and as for the *Seckel*, there was nothing of the kind in the room quite equal to it. The next best came from Mr. Tillyard, gardener to Lord Eversley, at Heckfield. The Frogmore collection was, in short, matchless in every respect. Some well-grown Pears were likewise contributed by Mr. Snow, gardener to Earl de Grey; and good fruit came from the neighbourhood of Edinburgh, but it was somewhat unripe. It served, however, to illustrate what can be effected with skilful management in a cold climate, on stiff clay. The trees which produced the fruit in question were at one time almost worthless, but by means of root pruning, concreting the bottoms of the borders, and replenishing them with fresh soil, fine crops of handsome fruit have since been obtained. Some good Pears, chiefly from pyramids, were also furnished by Mr. Whiting, from the Deepdene, near Dorking.

Of Grapes some grand bunches were exhibited. The best Muscats came from Mr. Drewitt, gardener to Miss Cubitt, near Dorking. Mr. Hill and Mr. Little also showed beautiful specimens of this variety. Mr. Fleming, gardener to the Duke of Sutherland, at Trentham, had capital specimens of *White Tokay*. Mr. Spary, of Brighton, sent *Marchioness of Hastings*, a green Grape with a large loose bunch, like that of the *Syrian*; and of similar size and character but more compact, was a grizzly Grape from Mr. Tillyard; this is said to be sister to the *Marchioness*, and to have also emanated from the neighbourhood of Brighton. Mr. Tillyard had three splendid bunches of *Black Hamburgh*; and so had Mr. Hill, who likewise showed handsome examples of *Black Prince*. Good *Black Hamburghs* came from Mr. Bousie and others. The large baskets of this variety, from the usual exhibitors of them, were furnished in beautiful condition.

Fruit of *Eugenia Ugni* was produced in tolerable abundance; but none of it was ripe. The best came from Mr. Gaines, of Battersea. Beautiful white Currants and *Morello Cherries* were shown by Mr. Tillyard; we also noticed some good red Currants from Mr. Divers, Raspberries from Messrs. Lee and others; *Late Admirable Peaches* in good condition from Mr. Little; one fruit of the *Salway Peach*, an

orange-coloured variety, from Mr. Turner, Melons, Shaddocks, and Oranges—the last both on plants and cut—from Mr. Robinson, gardener to Lord Boston, at Hedsor.

Among Pine-Apples, Mr. Spencer, gardener to the Marquis of Lansdowne, at Bowood, had a magnificent Providence, which well merited the first prize which was awarded it. Mr. Page and Mr. Bray also showed good fruit. The best Queen, which weighed 6 lbs. 4 oz., came from Mr. Temple, of Dowlais.

We may just remark, in conclusion, that the arrangement was all that could have been wished, and did credit to Mr. M'Ewen's good taste. Up the centre of each table, so as to divide it, as it were, into two halves, was a row of fine-foliaged plants, which served to break the sameness which otherwise must have prevailed, and to give variety and effect. In short, everybody seemed highly pleased with what they saw. The only regret was, that the company was not so numerous as could have been wished. The Society, however, deserves credit for being the means of thus providing the public with so excellent a show. Let us hope that in the long run it may be a gainer on account of it.

FLOWER GARDENING UNDER DIFFICULTIES.

As most people now-a-days are becoming more and more acquainted with the art of flower gardening, I beg to pass a few remarks, if you think them worthy of notice, as to the way in which I manage to propagate and winter about 7000 greenhouse plants for bedding out in the garden in summer. I have an old-fashioned greenhouse, heated by a brick flue, in which I keep all my plants, excepting my Calceolarias, which I winter in a cold frame, under a north wall, all the winter. This greenhouse is 30 feet by 9; it is full of shelves all round, and in the centre there is a stand which is always kept gay with flowers all the year round. In the first place, I will commence with the propagation of my Geraniums. Last spring, 1856, I had 18 plants of Golden Chain, which I cut up the first week in August; and this spring, 1857, I managed to get altogether 260. In the first week of August this year I commenced taking my cuttings. As usual, in the first place I selected a small piece of ground on a south border, first taking away the soil to the depth of a foot, then covering the bottom over with a little old lime rubbish and mortar; next upon that a thin coating of soot. I then prepare my soil as follows:—one part good hazel loam, one part leaf mould, and a little peat, and a good sprinkling of sand; if you have not silver sand, common yellow sand will do as well as any for most of the Geraniums—that is, to strike them in—but I prefer white, as I pot them in the same soil when rooted, and there they remain till planting out time. I then give it a good watering, and after it has got a little dry on the surface, I beat it down with the back of the spade, and it is then quite fit to receive the cuttings. The size of this piece of prepared ground is four yards square, and the number of plants which I struck on this was 1000 Golden Chain, 300 Mountain of Light, 500 Flower of

Day, 50 Alma, 50 Mountain of Snow, 200 Lady Plymouth, and 50 General Pelissier Geraniums, making altogether 2150 plants when potted up from the ground, and, I may say, as fine stocky stuff as one need to see. I can safely say, on the whole, I never lost more than about 30 or 40 plants, and that was chiefly owing to the worms pulling them out of the ground, chiefly round the outside of the bed. Last year I was very much troubled by the worms working in my cuttings, but this season, by putting the lime rubbish under them, I got over this difficulty. I have heard a great many say this year that Lady Plymouth Geranium is a difficult one to strike, but here I will tell you how to get over this difficulty. First of all procure a quantity of Moss from any old bank or elsewhere; dry it in an open shed, then take and put it in an oven. After you have done baking, that is, after the bread is drawn out, let it remain all night; take it carefully out the next morning, and put it in a box or basket; take it to the prepared piece of ground in the garden, then draw a drill with a hoe three inches deep, then get your baked Moss and crumble it to powder, and sow it along the drill; then rake the soil over it, and dibble your cuttings along the place where the Moss is, and depend upon it they will grow freely; in fact, any of the delicate variegated kinds will be benefited by so doing. Those who have never made use of this material should give it a trial; with Begonias, Achimenes, and Calceolarias, in the spring of the year, it is a fine thing as a substitute for peat, where you have not that description of soil at your command. But I must not dwell longer on this, but will at once return to the rest of my propagations. All the other kinds of Geraniums I propagate in shallow boxes, on a south border, or in pots, always allowing them to receive the full power of the sun, never shading by any means. I have had them withered down so that one would think it was impossible for them ever to recover, but these strike as quick as any. I have had Golden Chain Geraniums rooted in 10 days from the time they were put in the open air, I could easily have propagated 1000 more if I had wanted them by bedding out time. My Verbenas I put in pots or boxes, under hand-glasses, in the open air; in short, I have done away with nearly all my frame striking, as I find I can strike nearly everything in the open air with a little attention. Geraniums, Verbenas, Calceolarias, Petunias, Nierembergias, Buchneria, Lobelia, Alyssum, and, in short, almost everything can be done in this way. The *Verbena venosa* is a very useful plant in the garden; it can be used in so many different ways. Those who wish to get a stock of these will find no difficulty whatever in procuring a good stock by treating them as follows:—In the first place get a few old plants, say half a dozen old ones, from the ground; put them in a large pot, and place them under the stage in the greenhouse, and there let them remain until February or March; then shake them out of the pot, and cut the long mint-like roots in as many pieces as possible, taking care there is an eye to every bit; then put them in pans or pots as thick as you can put them; then cover them over with a little soil, and set them in a gentle hotbed, and in the course of three weeks you will have a host of plants. As most of the bits will send up two shoots, in a short time you will be able to top them and put the cuttings in and you may top again if you have not

sufficient, so that by the middle of May you can make it a perfect weed. Or you may sow the seed in February, and get as many as you like, but I prefer the roots, as they come into flower sooner than from seed. I will now return to the small piece of ground, where the cutting is waiting to be potted up. I have a small moveable potting bench; I take it to the spot, take up my plants, and fill my bench with the soil the plants have been growing in; the strongest plants I pot singly in small pots, and the smaller ones four plants in a 48-sized pot, and so I continue until the whole is finished. I then clear away all the soil down to the lime rubbish, and put a good covering of coal ashes on the top, and on this same plot of ground I set my plants in the following manner: In the square of ground I first of all form an oval, in the centre I place a large pot of dwarf grown plants of *Perilla nankinensis*; next a band of large plants of Lady Plymouth Geranium; next I fill the oval with pots of cuttings of the darkest green foliage plants that I have just potted from the ground, such as Lord Raglan, or Trentham Rose, or Pelissier, or any of the strongest growing kinds; then I make the oval larger by putting a broad band of Flower of Day round; then, to complete the square, I make four beds round the oval, edging the four beds round with pots of Tom Thumb, and filling the centre with the following: One centre Mountain of Snow, one Mountain of Light, one Lady Plymouth, one Mangles' Variegated, and to finish the outside round the Tom Thumb, I put one row Alma, and next outside, Golden Chain. This bed, when finished, has a gay appearance, as the different coloured foliage, when blended together, forms quite a conspicuous object. I must say it is quite a flower garden in itself; I have often seen pots of cuttings and plants put away in any out-of-the-way corner or place where they are not seen excepting by the gardener, but if brought out and arranged in the way above mentioned those out-of-the-way corners will become interesting from the bright leaves of the different kinds of plants. The Geraniums in the boxes I let remain until spring, and my Calceolarias I let remain in the boxes until spring, when I divide them and put them in small pots; and some of them I plant on strips of turf in a frame, and when the time comes for planting out I cut the turf in small squares and turn them into the ground. I have but very few failed in the garden this year, while some of my neighbours have been obliged to plant a second time. The only Calceolarias I grow are Trentham Gem, Kentish Hero, and Prince of Orange; these three are good varieties; the Kentish Hero, I think, is a most beautiful thing where you can get it to do, but with some it is a rather ticklish one to propagate. The way I manage is this: I take a batch of cuttings in the latter end of August, and put them in a cold frame, and there they remain until December, when I put them in the greenhouse; in the beginning of March I take the top off and put them in a gentle heat, and that furnishes me with a good stock of plants. By treating this great Hero in the way above mentioned you will be able to overcome all difficulty as regards striking. I beg to mention one more thing, that is, those who do not possess the little *Buchneria biflora* should lose no time in procuring it, as it is one of the most lovely little plants I know; it is now in perfect beauty—the middle of October—and stands all wind and

wet ; it is a beautiful white, and is good either for beds or edging. I fear I am trespassing too much on your patience respecting the propagation of bedding plants, but such is the method I adopt, and have always succeeded admirably.

Stanton Rectory.

CHARLES HATHERILL.

[In our September number we gave a short description of Mr. Grey Cotes' garden, at Stanton, at the time noticing the great number of good things which Mr. Hatherill has propagated and kept with but little means. The above communication will prove interesting and useful, we doubt not, to a numerous class of our readers, who may profit largely by the practical information it affords for all interested in flower gardening ; and who, now-a-days, is not ?—ED. FLORIST.]

MANDEVILLA SUAVEOLENS.

THIS justly admired climber is the only species I am aware of belonging to the genus—suggesting at once the idea that it stands alone unrivalled. For what is more delightful on entering a greenhouse or conservatory in summer than to see this plant arrayed in its chaste blossoms of snowy whiteness and inhale the rich fragrance it so abundantly emits. The flowers are large and noble, and produced in abundance in large axillary racemes.

To grow the Mandevilla well it should be planted out in a properly prepared bed or border in the conservatory, using a compost of two parts maiden loam to one of well rotted leaf mould. Let the soil be nicely chopped and mixed together, then fill the border at least 18 inches in depth, or deeper if the drainage is good. This done, turn the plant gently out of its pot (if grown in one), and carefully rub off any matted or decayed parts from the roots ; then plant it against a pillar or trellis, pressing the soil closely about the roots, so that they may at once receive fresh nourishment. Tie its top loosely to the trellis, giving a moderate supply of water to settle down the soil, and the work is finished.

Being of rapid growth the next provision to be made is plenty of space for the future development of this charming climber—the more room that can be afforded the more beautiful will be the display of blossom. It is possible to train it in various fantastical forms—lofty trellises answer well—still the festoon system, using strong cord or wire, especially if grown in a span-roofed house, will have a more graceful effect. It requires some attention to tie and regulate the young shoots as they progress in growth ; if neglected they will get so twisted and entangled as to puzzle one to unravel them, and then not without doing considerable damage to the flowers.

Like most rapid growing plants, whose tender shoots engender or become a prey to insects, the Mandevilla, I think, is the greatest victim in that respect, particularly to the ravages of the green and black aphid. These pests will attack it while in the height of floral beauty, requiring the utmost vigilance to destroy them by timely fumigating with tobacco

—say every other week—otherwise it will soon assume a dirty and languid appearance.

When once established it requires to be pruned every season, in the same manner as a vine, that is by spurring the lateral shoots to the larger ones. The best time to cut it is about January, as then the wood will be well matured, and the sap on the decline. After being pruned let the plant be thoroughly washed with tepid water and soft soap, to prevent the attack of mealy bug, which is so apt to infest it. This plant may be increased in various ways, that is, by putting pieces of the roots in small pots filled with sandy loam and peat, then plunged in a moderate degree of heat. If by cuttings, they should be taken off in spring, when the plant is breaking, with a *heel* adhering to them, and inserted in the above compost, round the side of a pot—but must be gradually inured to strong heat, as cuttings are so apt to damp off. The general way is to propagate by layers.

C.

REVIEWS.

Descriptive Catalogue of Fruits. 1857. By THOMAS RIVERS,
The Nurseries, Sawbridgeworth.

AN admirable descriptive list of fruits, classed in sections according to their qualities, and we should say correctly described. Mr. Rivers's knowledge of fruits is extensive, and his orchard-houses have given him the opportunities of proving some new kinds previously undescribed, and which are likely to be valuable additions to our gardens. This catalogue should be consulted by all interested in fruit culture.

A Select List of Plants, Fruits, &c., grown for sale by Messrs.
WM. ROLLISSON & SONS, *Tooting.*

THIS is a selection from their larger catalogue, containing their new and rarer plants, and the best of the older popular kinds—all very useful information for purchasers.

Abridged List of Stove and Greenhouse Plants, offered for sale by
W. J. EPPS, *Bower Nurseries, Maidstone.*

MR. EPPS is an extensive grower of specimen Heaths, Azaleas, and general greenhouse plants. We beg to direct the attention of exhibitors and gardeners generally to the plants he offers for sale.

The following Rose Lists for the present season have been received:—

Mr. RIVERS, *Sawbridgeworth, Selected List.*

Messrs. A. PAUL & SON, *Cheshunt, ditto.*

Messrs. WM. WOOD & SON, *Maresfield, ditto.*

THEY contain, no doubt, the cream of all the good things in the Rose way, with some individual recommendations. We are glad to perceive a tendency towards an abridgement, even with those who stick up for a rather larger assortment to lay before their patrons. Mr. Rivers's

views on Roses are well known, as also the discussions they gave rise to last season in our pages. Whether we are to have a second "*War of the Roses*," through any opinion broached in the present lists, we cannot take upon ourselves to say; but, whether or not, the character of the Queen of Flowers will, we feel sure, be safe in the hands of our talented correspondent "S. R. H." Parties purchasing Rosers should look the whole over.

NATIONAL FLORICULTURAL SOCIETY.

OCTOBER 1.—This meeting closed a very successful season with an excellent display of Dahlias, which were very fine. The awards were—Certificate of Merit to Dahlia Village Gem, form good, medium size, very stout, colour white with rosy purple tip; Certificate of Merit to Dahlia Loveliness, good form, size below average, substance very good, colour creamy white tipped with purplish crimson: these were from Mr. Turner, of Slough. Certificate of Merit to Dahlia Rosebud, size full, colour bright deep rose, large bold flower; from Mr. Alexander, Leyton. Certificate of Merit to Fancy Dahlia Princess Leonora, medium size and form, good substance, colour light rosy purple with white tips, of indifferent outline. A large number of Dahlias which had previously been exhibited were on this occasion reproduced, and for the most part sustained the awards granted to, and the general descriptions given of them, some eminently so, viz., Marion, Mrs. Church, Commander, Miss Watts, Miss Pressly, Standard Bearer, Beauty of High Cross, Village Bride, Oliver Twist, and Lillie Lund. Mr. Turner staged 96 flowers of all the newest and best kinds; 36 blooms, grown in the gardens of Buckingham Palace, were also exhibited by Mr. Wyness, gardener to Her Majesty. Prizes to Collections of Dahlias grown by Amateurs were distributed in the following order: Best 12 flowers—Lord Palmerston, Duchess of Kent, Lady Folkstone, Doctor Gully, Colonel Wyndham, Cherub, Sir J. Paxton, Princess, John Keynes, Admiral Dundas, Pandora, and Amazon—Mr. Dodds, Salisbury; 2nd best—Pre-eminent, Miss Caroline, Cossack, Marion, Canary, Robert Bruce, Annie, Lollipop, Satirist, Commander, General Havelock, and Lilac King—the Rev. C. Fellowes, Norwich; 3rd best—General Faucher, Amazon, Colonel Wyndham, Annie Salter, Perfection, Rachel Rawlings, Duke of Wellington, Duchess of Kent, Fearless, Pre-eminent, Cossack, and Beauty of Slough—Mr. Pope, Pimlico; 4th best, Richard Whittington, Caroline, Pre-eminent, Annie, Duchess of Kent, Robert Bruce, Amazon, F. Bathurst, Seedling, Dundas, Miss Spears, and Lollipop—Mr. Cook, Notting Hill. 5th best—Amazon, Omar Pacha, Rachel Rawlings, Lord Palmerston, Bessie, Mrs. Wheeler, Beauty of Slough, Meteor, Cherub, Pre-eminent, Yellow Beauty, and Lollipop—Mr. Humber, Southall; 6th best—Empress, Golden Tip Seedling, Rachel Rawlings, Lord Palmerston, Beauty of the Grove, Mrs. Edwards, Princess, Grand Sultan, Amazon, Constancy, Lady Folkstone, and Colonel Wyndham—Mr. Hopkins, Brentford. Best 6 Fancy Flowers—Triomphe de Rubeau, Oliver Twist, Duchess of Kent, Inimitable, Imperatrice Eugenie, and Carnation—the Rev. C. Fellowes;

2nd best—Lady Paxton, Charles Perry, Duchess of Kent, Souter Johnny, Carnation, and Cleopatra—Mr. Dodds; 3rd best—Topsy, Butterfly, Miss Frampton, Inimitable, Eugenie, and Wonderful—Mr. Humber. Best Specimen White, Miss Watts—Mr. Turner. Best Specimen Yellow, Sir J. Paxton—Mr. Dodds. Best Tipped Fancy, Lady Paxton—Mr. Turner. Best Striped Fancy, Charles Perry—Mr. Dodds. The following Dahlias were shown in fine condition, many of which had been successful at previous meetings:—Clara Novello (Alexander), fancy, size medium, full, nicely cupped, colour purplish maroon slightly tipped with white; Standard Bearer (Alexander), dark purplish maroon; Miss Pressly, very pretty, white neatly tipped with purple; Marion (Fellowes), white tipped with pale purple; Commander (Fellowes), crimson maroon; General Havelock (Fellowes), light scarlet; Oliver Twist (Fellowes), pale stained ground boldly striped with purplish crimson; Miss Watts, white; Sir James Watts, scarlet; Lady Mildmay, lilac, of large size; Countess of Bective, fancy, rosy lilac, the tips and centre of the florets white; Mrs. Church (Church), yellow slightly tipped; Village Bride (Green), light striped fancy; Beauty of High Cross (Green), dark striped fancy; Peerless, large, clear yellow; Lillie Lund, a canary self; Chilo, small, orange scarlet. Mr. Smith sent Fuchsias; Mr. Hall, Gourds; Mr. Wheeler, of Warminster, a Begonia.

PROPAGATION OF FERNS.

FERNS are propagated either by sowing the spores as seeds, or by dividing the plants. When the latter mode is adopted, it is generally best to remove the plant from the soil, and shake away all, or as much as possible, of the soil from the roots, in order that the parts may be clearly seen. Those Ferns which have creeping rhizomes, are generally increased, without difficulty, by dividing it so that each portion intended for a plant has one or more fronds, and a portion of the roots retained with it, in an uninjured condition. Such divided portions should be potted in the light soil recommended for the more delicate sorts, and should be kept close in a cool moist frame until established. They must be potted with the rhizome buried, or fixed on the surface, according to the habit of the kind under treatment. Those having a tufted or erect caudex require a different process. If there is more than one heart or crown, (as the tuft of fronds which surround each distinct axis is termed), the point of a knife is to be inserted carefully so as to separate them in such a manner that each crown may retain a portion of the roots. These divided portions are then potted in the soil proper to the species, and kept in a frame until established, as in the other case. Sometimes those which have the erect caudex form but a single crown, and to attempt to divide this would be to spoil or, perhaps, destroy the plant. In such cases the only course, if propagation must be attempted, is to destroy, by some gentle process, the axis, or extreme point of growth, to wait patiently until the lateral crowns which *may* thus be forced to develop themselves, have gained some strength, and then to divide as

before ; only, in this case, very much more care is necessary in the process of division. The spring season, just before growth recommences, is the best time for these operations.

Another extremely easy mode of propagating Ferns, such as the Hart's tongue, in which the living fleshy bases of the decayed fronds surround the older parts of the caudex, has been discovered by Mr. Jackson, of Guernsey. Each of these small portions, cut away with a portion of the rind of the caudex, and planted like root-cuttings, will, if aided by a little warmth, organise buds from the cut edges, and so produce young plants. In this way a single old plant may be made to yield progeny by dozens.—*From the third edition of Moore's Handbook of British Ferns, just published.*

THE EPACRIS.

WITH the object of refreshing the memories of amateurs on the importance they generally attach to a supply of winter-blooming plants, both for cutting and for the decoration of greenhouses and sitting-rooms, I send you a few remarks on the culture of the Epacris, thinking that for the many purposes that such plants are required there are few to surpass the gay colours of the Epacris ; the succession of bloom, too, that may be obtained from a good selection is not the least of its recommendations.

The propagation of the Epacris is readily effected, in the month of May or June, by selecting shoots of the current year's growth, stripping off the leaves from the lower part, and cutting the bottom evenly. They are then inserted half an inch deep, in prepared pots, filled with sandy peat over a good drainage. The whole should be firmly pressed, and after the cuttings are inserted should receive a gentle watering from a fine-rose watering-pot. The pots must then be covered with a bell-glass, and placed in a cold frame or pit, where they must be duly attended with water and shaded from the sun. In a month or six weeks it will be found that the cuttings have become "callused," or a ring of white cellular tissue will have formed on the margin of the cuts. When this is the case the "strike" may be considered safe, and the cuttings may then be removed to a warmer situation, such as the shaded part of an intermediate stove ; here they will almost immediately push out roots, and the tops will begin to elongate. At this stage the bell-glasses must be removed, and in a short time the points of the cuttings taken off, and if a scarce variety again inserted, and treated as before. In a short time numerous buds will be formed at the axils of the leaves ; they should then be potted singly in small pots. By keeping them somewhat close, in a cold pit or frame, they will soon commence to grow freely, and will continue to do so till late in the autumn. In winter little attention will be required, further than to keep the plants from the frost, with an occasional watering, and plenty of air during mild weather.

In order to give as long a season as possible the young plants should be examined early in February, transferring such as require it to larger pots, and placing them in a growing temperature of about

forty-five to fifty degrees. By this means the plants will make an early growth, and will require repotting early in the season, or about April. As the plants grow attention must be paid to stopping the strong growths early in the spring, as by this means a bushy compact habit is obtained, and the plants will be more compact and handsome. Shading will be required from the early part of March, in bright weather, till the middle of June. By this time, if all has gone on well, the plants will have made sufficient growth for the season, and should then be removed from the frame to the open air; if the pots can be plunged in coal ashes they may be fully exposed to the sun, and must be attentively supplied with water. No plant suffers more than the *Epacris* when stinted in its supply of water, and if flagging is allowed death is almost certain.

Exposed as above the plants become browned and unsightly; by this however they are benefited, as the wood being thoroughly matured flowers will be more abundantly produced. Early in September the plants must again be removed under glass, and wintered as before recommended; and as little bloom may this season be expected, it will be better to cut back to within three or four inches of their base all the strongest shoots of the former year's growth early in February, the plants may then be kept somewhat warmer for a week or two, when they must be carefully potted and placed in a growing temperature. The treatment this season will differ from the last, inasmuch as they will not require repotting, and only the strongest of the growths need be pinched, and these not later than April. If they are required early in bloom a light situation in the greenhouse must be selected, and the plants removed early in September from the open air.

By starting the plants early into growth they will acquire the habit of early flowering, which will in most instances enhance their value. In the dull months of early winter their varied colours look conspicuous and attractive, which is not the case to so great an extent when the more gaudy colours of "forced plants" begin to abound. S.

CALENDAR FOR THE MONTH.

Auriculas.—From the great amount of moisture in the atmosphere there will be some trouble in keeping these plants sufficiently dry, to prevent damping of the foliage. Give all the air possible without allowing them to have rain. If the plants are in an elevated position, so much the better.

Azaleas.—Place a few of the forwardest of these in a temperature of from 50 to 60 degrees; keep them well watered, and syringe them occasionally; in a few weeks they will begin to unfold their beautiful flowers. Let the general stock have plenty of air on mild days. See directions in last month's calendar.

Camellias.—The plants that were started early last spring will be now in flower; those whose blossoms are swelling should have plenty of water, as without it they are very liable to throw off the flowering buds, especially if the weather necessitates the use of fire heat.

Carnations and Picotees.—Treat these plants nearly similar to the Auricula, so long as wet weather continues, and water but sparingly in clear weather. Cleanliness, with plenty of light and air, is the principal thing to attend to to ensure success.

Cinerarias.—Mildew is often troublesome at this season; dust with sulphur the parts affected as soon as it appears. Those for exhibition or home decoration will require a final shift this month, using a good rich compost, composed of good fibrous loam, well decayed leaves, and stable manure, with an admixture of sand. Look well to those intended for exhibition, and peg down the larger leaves so as to admit the light and air to the centre of the plants. Place thin, and keep as near the glass as possible. Fumigate occasionally to prevent the green-fly; and give all the air possible, avoiding cold draughts, which cause the leaves to curl.

Cold Frames.—It is of the utmost consequence that plants in frames have particular and steady attention during winter. Every thing that may cause the plants to grow should be carefully guarded against; as the more perfect the rest, the better will the plants push forth in spring. Give abundance of air, and when the weather is favourable draw off the lights during the day. Carefully guard against damp. Water only when absolutely necessary. Be careful to cover up well at night against frost.

Conservatory and Show-house.—Give air liberally to those houses by opening the lights early on fine days; but be careful to shut up every evening, as severe frosts sometimes come unexpectedly at this time of the year. Do not use more fire heat at present than is absolutely necessary. Water carefully when requisite. Pay the greatest attention to cleanliness and order. Do not let a decayed leaf or flower of anything be seen. —Chrysanthemums, in which there has been of late years so great an improvement, will now be in all their beauty; they should have some weak manure water occasionally; all the small weak buds should be thinned out, and the others will bloom all the finer; these, with Camellias, Chinese Primroses, Gesneras, &c., will give these houses a gay and cheerful appearance at this season of the year. A few good specimens of plants remarkable for “fine foliage” will give greater variety and interest.

Cucumbers.—If former directions have been attended to the plants for winter bearing will now be in a forward state; keep them thin of wood by stopping lateral shoots and removing some where crowded, so that they may receive all the light possible in every part of the house. Keep up a good bottom of heat about 85 degrees, and a moist growing atmosphere; keep a temperature of from 65 to 70 degrees by night, and from 70 to 75 degrees by day, with an increase by sun heat. Pay proper attention to watering; and be careful not to overcrop them at this season. Give air every day if the weather permits, but invariably shut up warm. For green-fly and red spider use the usual remedies.

Dahlias.—These should be taken up and stored for wintering the first time the soil is tolerably dry. Dry them thoroughly with some of the soil about them. Seed will require much attention to prevent its rotting in the pod.

Flower Garden.—The beauty of flower gardens is over for this year, though we do not remember to have seen them in such splendour for so long a period as they have been in the season just drawing to a close. All that can now be done to please the eye here is to maintain as great a degree of neatness as is consistent with the season. Clear away everything that has been killed by the frost; clean and dress the beds, and plant with hardy bulbs those that are vacant. Keep the lawns and walks regularly swept and rolled. Any alterations that may be contemplated are much better done at the present time than being deferred until spring.

Forcing Hardy Shrubs.—The principal thing to be aimed at here is to ensure the proper expansion of the flowering buds. For this the first point to be attended to is to plunge the plants in a steady bottom heat of about 75 degrees; this will soon set the roots in action. The plants should be kept moderately moist at the roots, and the atmosphere should be kept moist. Syringe two or three times daily; give air freely in fine weather; they will not need any fire heat the first fortnight; after that the temperature should not fall much below 50 degrees at night.

Forcing Ground.—Place the first batch of Seakale roots on a nice steady bottom heat, and fill in between the roots with soil. Place some Rhubarb roots in heat. Put a good batch of Asparagus roots on a steady bottom heat, cover with soil, and water freely. Asparagus should have plenty of air, and all the light possible. Where the old plan of forcing by fermenting materials is still carried on a good heap of materials should always be ready for all emergencies.

Fruit (hardy).—Commence pruning and nailing immediately the leaves are off the trees. Examine the fruit in the fruit room, and pick out all that are the least decayed. A few of our apples are affected with some disease; they all decay inside before they show it exteriorly. We hear several complaints of a similar disease in this neighbourhood. Cover Figs to protect from frost. Scrape the moss off Apple trees, and thin the spurs well. Proceed with all heavy ground work, as making new borders, draining, manuring, trenching, &c.; transplant to fill up vacancies. Put in cuttings of Gooseberries and Currants.

Greenhouse (hard-wooded.)—After damp wet weather take advantage of a fine day to light a little fire, and give air freely. Do not use fire heat at night, unless severe frosts render it necessary. Ventilate freely on fine days, but be careful to guard against cold draughts. *Soft-wooded.*—Do not pinch these for pot-room, they will then keep growing without requiring much watering.

Hollyhocks.—A cold pit or frame is sufficient to winter well established plants, if kept near the glass, but they should have sufficient pot-room, and not over watered.

Kitchen Garden.—Continue to store root crops; choose frosty weather for wheeling manures; in fine weather trench and ridge all vacant ground. Continue to earth up Celery when dry; protect Cauliflowers that are heading from frosts, by tying the ends of a few of the leaves over the heart of the plant, until they are large enough to store away in pits, frames, or sheds; Endive and Lettuce will also require protection. Pot some Parsley, and place in frames to be ready in the event

of snow. Sow some Peas and a few Beans in a dry sheltered border. Attend to Cauliflowers under glasses, and see they get plenty of air in mild weather. Look well after slugs among young crops, and strew some soot or lime over them. All alterations of whatever description, such as the trenching and renewal of borders, draining, the formation of walks, &c., should be proceeded with without any delay in favourable weather.

Pelargoniums.—The early specimen plants are now growing vigorously. Proceed with the training of the branches into shape where they require it; give every shoot as much room as possible. Give air whenever the weather will permit, avoiding as much as possible cold draughts. Make fires only in frosty and very damp weather, both of which may now be anticipated. Too frequent use of fire heat at this season will have a tendency in making too rapid and sappy a growth; however, the temperature of the house should not be allowed to be below 40 degrees. When air is given shut up early in the afternoon, so as to gain the advantage of a natural supply of heat. All the plants that require shifting should be attended to at once; especially seedlings and young struck plants, using the next sized pot, a large shift at this late season being undesirable. Watering is an operation at this time requiring very great care; they should be kept pretty dry, and especial care taken not to wet the foliage. Cuttings will now strike freely on a warm dry shelf.

Pinery.—For plants in fruit see directions in last month's calendar. Plants intended for fruiting next year should now be at rest; keep the atmosphere of the house rather dry, and let them have plenty of air; but little or no water should be given them at present. Give the young plants air in fine weather, and keep a rather dry atmosphere; keep them moderately dry at roots, and see they have a nice steady bottom heat.

Pinks.—If not already done a few pairs should be potted up, to fill vacancies that may occur during the winter, as well as some of the more tender growing kinds.

Roses.—There are but few cultivated soils that the late genial summer has not left in prime order for planting, and as taking advantage of this month alone insures the production of blooms the first year, prepare ground, make your selections forthwith, give early orders, and secure healthy plants; see that *no delay occurs in getting them in the ground on their arrival*, and success is certain. *Roses in pots*.—Those to be forced for early bloom must not now be kept longer out of the greenhouse.

Tulips.—Complete planting without delay, the beds having been prepared as previously recommended.

Vinery.—Keep the atmosphere of late vineries as dry and cool as possible. Fire heat will be required occasionally, both to keep out the frost and to dry up damp. Remove all dead leaves: this will admit more light to dry and air to circulate about the Grapes. Pay particular attention to the outside border of the house started last month; see there is a nice heat, about 90 degrees, in the fermenting material on it. Pay great attention also to the temperature of the house; it should not much exceed 50 degrees at night until the buds are breaking.



Dahlia
Jupiter (Rawlings)

DAHLIA, "JUPITER."

(PLATE 133.)

THE accompanying illustration, the last of our tenth volume, is the first fancy Dahlia we have figured.

In the Dahlia lists of 1845 Oakley's Surprise is the only fancy Dahlia we find. In a season or two, however, this showy class had increased to a very considerable number, and from that time to the present they have gone on gradually improving in quality, and that to such an extent that many now rival the "selfs" in form, and are also marked in the most dissimilar and fanciful manner, including "tipped," "edged," "striped," "spotted," and "blotched." The favourite and by far the most effective class is the "tipped," one of which we now figure, produced by Mr. Rawlings, a very successful raiser of new Dahlias.

It has been very frequently exhibited during the past season, and appears to be very constant, with the advantage of having strongly contrasted colours—maroon tipped with white.

As a class, compared with the "selfs," the fault of the fancies is their inconstancy, either in marking, or coming full in the centre. The following are the best in these respects:—Charles Perry, Lady Paxton, Cleopatra, Comet, Duchess of Kent, Baron Alderson, Miss Frampton, Pigeon, Butterfly, Kaiseren Von Osteriche, Magician, and Conqueror.

The striped kinds are becoming too numerous in proportion to others, and the more so, they not being as garden varieties so effective as those which are tipped only.

We have often been applied to by amateur growers for a definition of what constitutes a fancy Dahlia. This, however, we cannot give better than do the leading growers in their published catalogues.

If an inexperienced exhibitor has any doubt as to the class in which he should exhibit any particular variety, he may safely consult such lists. It is held by some that striped kinds should be exhibited as a distinct class; this may be found to be desirable, but it is evident that we shall speedily have one of bedding Dahlias, some particulars of which we propose to give in a future number.

 CHRONICLES OF A SMALL GARDEN.—No. V.

GENTLE reader (for gentle I hope you are, if a florist), have you ever been in the company of ladies, when they are indulging in one of their greatest enjoyments, a day's shopping? If so, you must have noticed the keen relish with which they "go at it," the nice discrimi-

nation of colour, the delicate sense of texture, as their fair fingers pass through them the "loves of silks" which the obsequious shopman hands out to them—and I doubt not have marvelled at the wonderful reasons they have for rejecting each proffered piece; this is so like one they have, that is flimsy, and this won't keep its colour—a fourth is decidedly dull—a fifth is exactly like Miss So-and-so's; and you have perhaps wondered at the strange and minute differences which their eye detects, where your's can see only all alike. Now, my good friend, I sometimes think they might laugh at us florists, when we deal with florists' flowers. Is there not here the same process going on?—*this* is so like what we have—*that* flimsy, this, bad in colour, &c., &c. And do we not, alas, often mourn at some Goth who pronounces them all alike, and wonders where we can see the difference?—and when one looks into some Rose Catalogues, the compilers of which boast of 2000 sorts, and there find "rosy crimson, crimson, brilliant crimson, purplish crimson, light vivid crimson, bright fiery crimson, &c. &c.," I think we shall be more inclined to feel grateful to those Rose-growers who, like Mr. Rivers, do not confound us with an "embarras des richesses," but give a select list, from which the uninitiated may cull and the connoisseur find the choicest sorts he can have. Like everybody, he is fallible, but on the whole his catalogue is the safest guide we have. Having grown Roses for some years, and having seen them under the hands of others, I shall, I hope, be able to be of some little service in giving a list of sorts—first observing that there are two points which, if a Rose be not possessed of, I cannot think a small grower is right in retaining it, viz., good growth and freedom of opening. There are some sorts which are, I know, very beautiful; but what is the use of having a scrubby thing which gives a bloom now and then, or a flower that most pertinaciously refuses to disclose its beauties, and dies with over modesty!

I shall, then, take first the summer Roses; and second, the autumnal ones.

I. *Summer Roses*.—Mr. Rivers tells us these will soon be discarded. I question it. Where, as yet, have we anything to equal Paul Ricaut in colour or Coupe d'Hebe in shape? And until we have I would recommend the old proverb, "Never throw away dirty water until you get clean." Who could reject Boula de Nanteuil or Blairii No. 2? The few that I grow are the following:—

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|----------------------|--------------------|
| 1. Crested Provence | 8. Chénédolé |
| 2. Celina, Moss | 9. Brennus |
| 3. Lanei, do. | 10. Paul Ricaut |
| 4. Prolific, do. | 11. Coupe d'Hebe |
| 5. White Bath | 12. Persian Yellow |
| 6. Boule de Nanteuil | 13. Harrisoni |
| 7. Blairi No. 2 | |

I do not give any descriptions of these, for Mr. Rivers' are very accurate, and have only to observe that the White Bath is a very difficult Rose to keep; yet I saw it once in Ireland growing on its own roots as vigorously as the common Moss; there must have been something in the soil and situation peculiarly suited to it, for I never saw it so before or since. Unquestionably, however, the great proportion of Roses grown are—

II. *The Autumn-blooming ones*.—Many, I fear, have been misled

by the term perpetual, thinking that they were always to have Roses in bloom. Now I know not what other persons' experience may be, but they are anything but perpetual with me. You do get now and then some sorts that bloom well in autumn, but I have seen some large nurseries, and it is only here and there that in autumn you see a bush filled with bloom—this year, especially, owing to the hot weather, the second bloom came so rapidly on the first, that the autumnal bloom has been comparatively insignificant. I have discarded the following, as being bad growers or bloomers:—

Auguste Mie	Never opens well.
General Castellane	Bad grower.
La Reine	Never opens with me.
Madame Campbell d'Islay	Never opens.
Victoria	Ditto.

And grow the following—

1. Alexandre Bachmetoff	15. Lady Alice Peel
2. Baronne Hallez	16. Lord Raglan
3. Baronne Prevost	17. Louise Peyronney
4. Colonel de Rougemont	18. Madame Fremion
5. Duchess of Norfolk	19. Madame Masson
6. Duchess of Sutherland	20. Madame Laffay
7. Duchess of Montpensier	21. Madame Rivers
8. Géant des Batailles	22. Paul Dupuy
9. General Bedeau	23. Prince Léon
10. General Brea	24. Triomphe de Paris
11. General Jacqueminot	25. William Griffiths
12. Gloire de France	26. Le Lion des Combats
13. Graziella	27. Dr. Juillard
14. Jules Margottin	28. Madame Damage

I do not describe them, as Mr. Rivers has done that; I may say, however, a few words. I do not think any Rose, as yet, has beaten Géant. It has but one fault—it *dies* badly; but for growth, brilliancy, and freedom of bloom, I can see nothing yet to excel it. General Jacqueminot is very brilliant but not double enough. With Lord Raglan I have been disappointed, as it has bloomed but scantily with me. Jules Margottin is very excellent, but certainly for beauty. Prince Léon carries off the palm—not *brilliancy*, for it is a cherry—but so exquisite in shape and bright in colour that it at once attracts. I have found Géant, Jules Margottin, Prince Léon, and Madame Damage the best autumnal bloomers.

Of *Bourbons*, I grow—

1. Acidalie	7. Paxton
2. Adelaïde Bougère	8. Queen
3. Aurore de Guide	9. Souvenir de l'Exposition
4. Dupetit Thouars	10. Souvenir de Malmaison
5. Jurie	11. Souvenir d'un Frère
6. Louise Odier	12. Vorace

and have given up growing—

Menoux	Scipion
Paul Joseph	Souchet

as too delicate for me.

Souvenir de Malmaison is a grand Rose, Vorace and Jurie very brilliant, Souvenir de l'Exposition very dark; the rest are good.

China.

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|-------------------------|-------------------------|
| 1. Cramoisie Supérieure | 3. Mrs. Bosanquet |
| 2. Madame Bréon | 4. President d'Olbecque |

Tea-scented Roses are about the most satisfactory group of all, always blooming, and, withal very fragrant, quite ladies' Roses. Of these I have:—

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|---------------------|-----------------------------|
| 1. Adam | 8. Niphetos |
| 2. Devoniensis | 9. Pactolus |
| 3. Eugene Desgaches | 10. Safrano |
| 4. Gloire de Dijon | 11. Souvenir d'un Ami |
| 5. Goubault | 12. Comtesse de Seraincourt |
| 6. Madame Willermoz | 13. Cerise Pourpre |
| 7. Moiré | 14. Narcisse |

Of these 2, 4, 6, and 11 are the best. I think nothing can be more exquisite than their shape and perfume; and the continuous bloom that they give—whether in pots or in the open air—after being planted out, make them specially valuable; they have one fault, too much sameness in colour.

Noisettes alone remain.

I have given up Cloth of Gold; where it can be grown, it bears off the palm from all others. The only *Noisette* I grow is *Solfaterre*, whose days are numbered, if *Isabella Gray* be worthy of the character given to her.

I have thus given what I believe to be a selected list, and shall be very glad if it form any guidance to those looking out for *Roses*, and know the value of such helps myself. Now is a good time to procure them; but I should recommend all who get them now to *pot* at once, and keep them in a house or pit until June, and then turn them out, as I recommended in my last notice. There is but little to do now in gardens. I am just preparing my *Ranunculus* bed by putting in well-rotted cow-dung, though I do not find the necessity of laying it at the bottom of the bed, as some do, but merely mix it up well and turn it over in frosty weather, picking out all *worms*, grubs, &c. As to other matters, the directions for last month are quite sufficient, and with this fine weather things ought to be doing well.

Deal, Nov. 17, 1857.

HORTICULTURAL SOCIETY'S LATE FRUIT SHOW.

IT must be admitted that some of the foreign produce exhibited on the 24th of October last, at Willis's Rooms, was very fine, and the collections from fruiterers very showy; it must, however, be remembered, that many of the largest specimens were kitchen sorts, and totally unfit for other purposes. The collections of home growth, on the contrary, contained the most esteemed kinds in a high state of perfection, produced under less favourable circumstances; we have not the warm climate and sunny skies of France. Taking all things into consideration, therefore, we must take credit to ourselves for having produced the finest

fruit through skilful management, and under difficulties unknown to our continental neighbours.

As you observed last month, the principal fruit sent for competition occupied two long benches in the large room, and was admirably arranged, so that visitors had every facility of viewing it. In the centre were ornamental plants and Pine-apples, and I also noticed two very nice groups of fruit, suitable for centre pieces on dinner tables. These were made up of black and white Grapes, Apples, Pears, and small Gourds, very gracefully intermixed with berries of the *Cratægus*, Snowberry, and *Pernettyas*, the effect of which was charming, and showed what might be effected with taste, even with common-place materials.

Another room contained several large collections of Apples and Pears sent for exhibition only. One of these tables contained large collections from Belvoir Castle, Ribston Park, and Stourton; and it was gratifying to observe that some of the fruit in those exhibitions was quite equal to the produce of the south. Those from Ribston fully illustrated the suitability of the limestone of the district for the growth of the Apple.

Mr. Rivers also sent a very interesting collection of 48 sorts of Pears, among which were many new kinds, such as Alexandre Lambré, an excellent new variety ripening in December; Beurré Clairgeau, a very large handsome new Pear, but not of first-rate quality; Swan's Orange, a pretty American sort, said to be excellent; Bergamotte d'Esperen, a late Pear, ripening from March to May, very hardy, and a free bearer; Beurré Gris d'Hiver Nouveau, an excellent January kind; Leopold the First, a new middle sized melting January variety; Beurré Bachelier, a new melting Pear; Duc de Brabant (Millet), a new and large late sort. Those exhibited, we believe, were the first fruited in England. A written statement accompanied each case of fruit in this exhibition, showing under what circumstances it had been produced, which made the collection doubly interesting.

Messrs. Paul, of Cheshunt, likewise contributed a large collection of Pears; in addition to which there were other contributors of less magnitude, and a large assortment of Gourds was shown by Messrs. Lee, of Hammersmith, Messrs. Charlwood and Cummins, of Covent Garden, and Mr. May, of Wellington Street. These, as may be supposed, attracted a good deal of notice, owing to the curious forms and various colours of the different varieties exhibited.

In the class of Pears of home growth—twelve sorts, six of each—there were several competitors, the first prize being won by Mr. Ingram, Royal Gardens, Frogmore, with fruit which for size and beauty were truly magnificent. They consisted of Van Mons Leon le Clerc, very large; Beurré Diel, very large and beautifully coloured; fine specimens of Seckel, an American variety of great merit; fine clear specimens of Marie Louise and Glou Morceau—well known Flemish sorts. The former is in use at Frogmore for a length of time; this is accomplished by gathering at different periods, some remaining on the trees as late as November. The other kinds in the collection were Beurré de Capiaumont; Beurré Rance, fine, from a north wall; Vicar of Winkfield; Hacon's Incomparable, and Brougham, both very hardy varieties, the latter one of the late Mr. Knight's seedlings; Beurré Bosc; and

beautifully coloured examples of Knight's Monarch, an extremely useful kind, ripening gradually through the winter months, and affording a supply for table from November to the spring. Mr. Tillyard, gardener to Viscount Eversley, at Heckfield, sent good fruit of Winter Nelis, Ne Plus Meuris, Beurré de Capiaumont, Beurré Diel, Marie Louise, Louis de Orleans, Beurré Rance, Easter Beurré, Hacon's Incomparable, and the Forelle or Trout Pear, a beautiful variety; together with very large specimens of Grosse Calebasse and Duchesse d'Angoulême. The second prize was awarded to this collection. The next best contribution in this class came from Mr. Harrison, of Oatlands Palace, and contained the following:—Beurré Diel, Beurré Rance, Easter Beurré, Marie Louise, Duchesse d'Angoulême, Hacon's Incomparable, Passe Colmar, Winter Nelis, Ne Plus Meuris, Chaumontel, Glou Morceau, and Vicar of Winkfield. These were all well grown fruit, but not so large as the same varieties in the above collections.

In addition to these, several other lots were exhibited in this class; those contributed by Mr. Carmichael, of Dunmore Park, were well worthy of notice. They were very fair fruit from that part of Scotland; amongst them were Marie Louise, Brown Beurré, Beurré Rance, Dunmore, Urbanisté, Winter Nelis, and Glou Morceau. This was an example of what may be accomplished with Pears in the Carse of Stirling. A similar collection of equal merit was also contributed by Mr. Anderson, from Oxenford Castle, near Edinburgh. The latter, on being cut, were found to be excellent in flavour. Mr. Snow's collection contained some very fine specimens of Chaumontel, Beurré Diel, and Marie Louise. Mr. Frost, gardener at Preston Hall, sent excellent samples of Beurré Diel, Duchesse d'Angoulême, Marie Louise, and some beautiful specimens of the Trout Pear. Other collections were exhibited by Mr. Chesher, of Woking; Messrs. Lane and Son, Mr. Selkirk, Mr. Spivey, of Hollandbury; and Mr. Whiting, gardener at the Deepdene, near Dorking. These contained nearly the same varieties as those just mentioned. Mr. Whiting's fruit was from pyramidal trees, and grown in a poor sandy soil, which is considered unfavourable to the successful cultivation of the Pear; nevertheless the fruit was clear and good, and stated to be of excellent quality.

In the Pears of home growth—six sorts, six of each—Mr. Sorley, gardener at Roselands, near Liverpool, sent good fruit of Marie Louise, Winter Nelis, Easter Beurré, Beurré Diel, Brown Beurré, and Glou Morceau. To these was awarded the first prize. The next best came from Mr. Wood, gardener to R. Scott Murray, Esq., whose varieties were Beurré Diel, Ne Plus Meuris, Duchesse d'Angoulême, Easter Beurré, and fine specimens of Vicar of Winkfield and Van Mons Leon le Clerc. Following these in point of merit in this class came fruit from Mr. Fowle, gardener to G. W. Cooke, Esq., Beesthorp, near Newark, of Marie Louise, Easter Beurré, Passe Colmar, Buchanan's Spring Beurré, Glou Morceau, and Althorp Crassane. There were several other competitors in this class, and good fruit furnished of the sorts already named was contributed by Mr. Baldwin, of Turnham Green; Mr. Kinghorn, of Richmond; Mr. Cox, gardener to W. Wells, Esq.; Mr. Mortimer; Mr. Hope; Mr. Parsons, of Welwyn; and Mr. Newton, of Enfield Chase.

In single dishes of Pears there were about twenty exhibitors. Generally speaking, however, the fruit was inferior to that in several of the large collections. Mr. Tillyard obtained the first prize for a dish of beautifully grown Seckels; and the second prize was awarded to Mr. Fowle, gardener to G. Cooke, Esq. The next best came from Mr. Snow, gardener to Earl de Grey, for a dish of very fine Doyenné Gris. Good specimens of Beurré Bosc were sent by Mr. Ingram, gardener to J. J. Blandy, Esq.; and very handsome and finely coloured fruit of the Beurré Clairgeau came from Mr. Cox, Redleaf. The only recommendation this new Pear can lay claim to is its beauty; even the past warm summer has not improved its quality; it has proved coarse grained and deficient in flavour. Hitton's Seedling is likewise a large and showy Pear; the fruit of this kind was over ripe, consequently it was dry and mealy. In the class of kitchen Pears, Mr. Snow gained the first prize for immense fruit averaging $1\frac{1}{4}$ lb. each of Uvedale's St. Germain. The other kinds shown were Catillac and Winter Bon Chretien.

For Pears of foreign growth, Mr. Solomon won the first prize, with a collection which contained large and finely coloured fruit. Mr. Hovey, of Boston, U.S., also showed in this interesting class; his fruit, however, was not equal to our home produce,—a fact doubtless to be attributed to the unfavourable season experienced this year in the States for Pear growing. The sorts in this collection were mostly well known kinds, and but few amongst them were of American origin.

Some excellent Pine-apples were exhibited; the best, as was mentioned in your hasty sketch last month, came from Mr. Spencer, who obtained the first prize for a fine Providence. Mr. Temple, of Dowlais, furnished the best Queen, weighing 6 lbs. 6 oz.; other good Queens were contributed by Mr. Forsyth, gardener to Baron Rothschild; Mr. Page; and Mr. Bray, gardener to E. Lousada, Esq., Peak House, near Sidmouth, who also sent a good Cayenne; from Mr. Dods came a very fair Moscow Queen; and a good Black Prince from Crew Hall.

Grapes were largely exhibited and exceedingly fine, especially Muscats. The best came from Mr. Drewett, gardener to Mrs. Cubitt, The Denbies, near Dorking. The next best came from Keele Hall, Staffordshire; and fine bunches from Mr. Little, gardener to A. Darby, Esq., Stoke Court, Slough; Mr. Snow also had well coloured bunches of this variety; likewise Mr. Frost, of Preston Hall; and Mr. Fleming sent fruit from Trentham from Vines which were lifted in September last year, and a new Vine border made. Large bunches of the White Tokay were also furnished by Mr. Fleming. A large loose bunch of the Trebiana was shown; this variety is scarcely worthy of cultivation. A Grape called the Marchioness of Hastings was exhibited by Mr. Spary, said to be one of Mr. Mitchell's seedlings; it has a large loose bunch, the berries of which are green, and in flavour similar to that of the Sweetwater. Excellent bunches of Hamburgh also came from Messrs. Tillyard, Hill, Snow, Thomas, Allport, and Bousie. The latter sent good bunches of Black Prince, but not quite equal to those exhibited by Mr. Hill. Excellent St. Peter's came from Mr. Allport, gardener to H. Ackroyd, Esq., Doddington, Nantwich.

In the market gardener's class, Mr. Davis, of Oak Hill, sent a fine box of Hamburgs and Muscats, and deservedly obtained the first prize; others came from Mr. Spary, of Brighton; and Mr. Bell, of Norwich.

Apples were shown on a large scale, and all the fruit was extremely fine and beautifully coloured. Not a single bad dish was visible among the home produce, and we regret that our space will not admit of noticing every collection. In the class of twelve kinds, Mr. Snow, gardener to Earl de Grey, furnished good specimens of Royal Russet, Selina, Old Golden Pippin (fine from a wall), Fearn's Pippin, Blenheim Pippin, Court Pendu Plat, Bull's Golden Reinette, Scarlet Nonpareil, Spanish Pearmain, Golden Noble, Normanton Pippin, and Hanwell Souring. The first prize was awarded for this collection. The next best came from Mr. Ingram, Frogmore, who exhibited the following kinds, all table Apples:—Syke House Russet, Rosemary Russet, Scarlet Russet, Scarlet Nonpareil, and fine fruit of the Old Nonpareil;—these are all useful winter varieties;—Small's Golden Pippin, King of the Pippins, and Jefferson; the latter is a beautiful new American variety, of excellent quality. Taylor's Seedling, also a new Apple, which appears to be an improvement on Manks' Codlin, which kind it much resembles. In addition to these were Fearn's Pippin and Cox's Orange Pippin, an Apple possessing superior qualities. Mr. Cox, of Redleaf, also sent a fine collection, among which were splendid Blenheims and King of the Pippins. Fruit of the new Hawthornden was exhibited in Mr. Lane's collection; it is said to be better, and will keep longer than the old variety. In every instance the Blenheim Orange, Fearn's Pippin, King of the Pippins, and Golden Noble, were extremely fine.

In the class of single dishes of dessert kinds, Mr. Simpson gained the first prize for beautiful fruit of Cox's Orange Pippin; this is not altogether a new variety, but it is not by any means so well known as it deserves. It proved on the present occasion far superior to the Ribston; therefore, fine fruit of that old English favourite, shown by Mr. Hope, of West Ham, was placed second in point of flavour. The next best was the Dunmore Pearmain, from Mr. Carmichael.

In the class of kitchen kinds, Mr. Frost, gardener to E. L. Betts, Esq., Preston Hall, obtained the first prize for a splendid dish of Dumelow's Seedling (commonly known as Wellington). Mr. Whiting stood next best for some fine fruit of the Bedfordshire Foundling; and the third prize was awarded to Mr. Wells, for good fruit of Blenheim Orange.

Messrs. Hovey and Co., of Boston, sent a collection of American Apples, which, comparatively speaking, were not equal to English fruit. The best among them appeared to be the Baldwin, Northern Spy, Porter, a conical yellow Apple; and Rhode Island Greening, a dark green sort, but said to be excellent. Mr. Lewis Solomon also contributed a splendid collection of foreign growth; among them were some English varieties, which for size and colour were superior to English grown fruit.

Late Admirable Peaches were shown by Mr. Little, gardener to A. Darby, Esq., Stoke Court, Slough; these were fine fruit, and in good condition. A dish of the same variety was also sent by Mr. Hill; and Mr. Turner, of Slough, sent the Salway Peach, which is a new yellow

fleshed variety; it fully sustained the high character which has previously been given it.

The best Melon came from Mr. Watson, of Ealing, which was Seamore's Green Flesh. Others were contributed by Mr. Munro, of Colney House, St. Alban's; and Mr. Frost, of Preston Hall, sent a hybrid Bromham Hall. Considering the late period for Melons, the fruit was in good condition.

Of Plums few were exhibited; this, doubtless, was owing to the fruit ripening earlier than usual this season. The only kinds sent were Blue Imperatrice and Coe's Late Red.

Mr. Tillyard exhibited a splendid basket of White Currants and Morello Cherries in a good state of preservation. Also some fine branches of double-bearing Raspberries; this shows that the season of summer fruit may be extended till even late in autumn by proper care and attention. Red Currants came from Preston Hall, as well as a fine basket from Mr. Snow. Brown Turkey Figs also came from the last-named exhibitor. Mr. Ingram, of Frogmore, sent the best dish of Alpine Strawberries, which contained both the red and white varieties. Mr. Tillyard also exhibited in this class; in addition to other fruit we noticed the Prickly Pear, Guavas, Pomegranates, Oranges, and Shaddocks.

I may mention, in conclusion, that I was sorry to observe so many instances of incorrect nomenclature. I think at large meetings like this, where so much fruit is brought together from all quarters, it would be wise if the Society were to secure the services of one or two competent men (in addition to the judges), whose duty it would be to correct all errors in this respect that might be noticed, before the fruit was exposed to public gaze. This would be a boon to the gardener and a service to the public. I also hope, should the Society continue these very interesting meetings, that it will open them for at least two days. This, I think, might be the means of adding satisfactorily to the financial resources of the Society.

J. POWELL.

Royal Gardens, Frogmore.

THE WARS OF THE ROSES.—No. III.

“Smell to this flower; here Nature has her excellence:
Let all the perfumes of the empire pass this,
The carefull'st lady's cheek shew such a colour.”

Diocletian.—Beaumont & Fletcher.

As I was not invited to the last coronation (I have good reason to believe that my absence threw a gloom over the whole proceeding, and that it has been alluded to with tears in the highest quarters), I am unable to state whether a Champion came forth, as heretofore, and defied the world by gauntlet thrown to doubt the sovereignty of his royal mistress. Be this as it may, the Queen of Flowers shall never want a knight, proudly mounted (on a garden roller), and gallantly armed (with a budding knife), to do battle for her, and to proclaim her

over all other floral potentates, Turbans and Crowns-Imperial, supreme. The glove which I throw down in challenge may by the fastidious be considered dirty, but it has slain its thousands (of the aphids), and has braved the lance of *Briareus*, with all its hundred points. Silence, fair ladies and gentle men, who cometh forth to take up my gage, and to do battle with the Knight of the Rose?

And "silence holds her solitary reign," until there ariseth a mighty shouting, of many voices but as from one heart, "Long live the Queen of Flowers!"

Happy Rose-growers, you may well be loyal! Before me, as I write in mid-November, the sere leaves shivering down, the Queen of Autumn dethroned (delicacy forbids me to describe the treatment which she receives from her subjects, when her coronation robes begin to look shabby, how she is dragged from her throne, denuded, and cast into a dreary prison) before me is a beautiful bouquet of Souvenir de Malmaison, Gloire de Dijon, and Géant des Batailles, and for nearly seven months we have been basking in the sunny presence of our queen, have had

"Posies of Roses
To gladden our noses,"

ever since the dear little Banksiæ, which surely must have suggested to Gerald Massey his touching lines upon "Our wee, white Rose," came forth like the star of even, ere all "earth's firmament" was flooded with light.

Ah, my brothers, though this has not been one of our most successful years, for suns have scorched and rains have drenched us more than in ordinary seasons, yet what happiness we have had in our gardens, ever since Géant des Batailles (no connection with Mr. Benjamin Caunt) rode out in his scarlet uniform to herald the advent of our sovereign, with (sweetest of *suites*) her lords and ladies. Who shall essay to tell how welcome to the Rose-grower is the first Rose of summer? welcome as the first sight of the sun to one who, like the gallant Kane, has wintered drearily in dark Arctic regions:—"I saw him once more," he writes, "and upon a projecting crag nestled in the sunshine. It was like bathing in perfumed waters."

A Rose garden in its early bloom puts me in mind most pleasantly of one of the most cheering scenes of my youth,—the re-assembling of under-graduates at Oxford, after the long vacation. There were the joyous and *rosy* faces of dear old friends; there was *Frank*, by whose side we jumped the Evenlode, and then had the hounds to ourselves; *Jack*, the captain of our boat, awful in our eyes as the Ancient Mariner; *Charley*, who was "in" two hours against the Marylebone; and *Evelyn*, with whose pretty sister we danced at the Commemoration ball, and with whom a sudden thought has struck us to swear eternal friendship. Somewhat aloof, stand the freshmen, the untried ones (some of whom, just as with the Roses, we have been asked by friends to notice) shy, and excessively uncomfortable in their academic costume and in the consciousness that we, their "potent, grave, and reverend seniors," are engaged in a supercilious survey, speculating, with remarkable ease and frankness, who look like good fellows, and who like muffs.

So with the flowers. Old friendships are strengthened, and new ones made. There is Ricaut, looking handsomer than ever; and now approved friends, though they only "came up" last year, Raglan, Mathurin Regnier (we call him "young Griffiths," from his likeness to William) Pelissier, and many others. While in a corner are assembled the noviciates, not long released from the maternal thumb-pot, and from the warm, genial atmosphere in which they were raised from cuttings. From the nurseries of watchful love they have been sent out, on their own roots:—sunshine and gentle dews be upon them!

Earth, assuredly, hath not a more lovely sight than a garden of Roses in July,—

"lovelier not the Elysian lawns,
Where paced the demigods of old, and saw
The soft white vapours streak the crown'd towers
Built to the sun."

"A goodly sight, a goodly time," and I was going to add, a peaceful, but what have I to do with peace? Mine it is to chronicle the wars of the Roses. A floral Moloch, my council is for open war. Arouse thee, then, gardener, "hang out our banner" (of tiffany) on the garden wall; hoist up Standard of Marengo, Les Etendards de Sebastopol, et du Grand Homme; to-morrow is the day of our first Rose show; and when

"the country cocks do crow, the clocks do toll,
and the third hour of drowsy morning name,"

you must wake me early, dear knave of spades, and with a pebble thrown at my bed-room window,

"give dreadful note of preparation."

To me this is the crowning joy of Rose culture, the excision and arrangement of twenty-four perfect flowers. I dislike the three-truss system, as being unnatural, and because Roses ought no more to be crowded and crushed than English ladies, who wait admission to the Royal presence; and I contend, furthermore, against "fifty varieties," because, to make up this number, some inferior blooms must be admitted, and these materially detract from the general effect and beauty. The florist's eye is censorious, and quick to apprehend a flaw; just as we read in that pretty story of "The Athelings," how that when, for economy's sake, the ladies with their own hands had papered their morning room, and had so successfully combined the pieces, that but one defect was patent, one obstinate refusal to harmonise; they were nevertheless most painfully constrained to see that the gaze of every visitor fell swift and sure upon it, and wandering only when politeness bade, found chiefest comfort *there*.

But look at my Roses, ready to start, like twenty-four Lilliputian jockeys, in gorgeous jackets of silk and satin, crimson, and gold, and pink, and white, and purple, mounted for Queen Mab's Plate! Would any of your readers wish to have a correct card and list of the horses? Well, here are the two dozen—winners all of them. From the Hybrid Bourbon stables, Coupe d'Hebe and Paul Ricaut; Hybrid China, Blairii 2; Gallica, Boula de Nanteuil; Hybrid Perpetual, Auguste Mie, Baronne Hallez, Caroline de Sansalles, Duchess of Sutherland,

Géant des Batailles, General Pelissier, Jules Margottin, Lord Raglan, Louise Peyronney, Madame Rivers, Mathurin Regnier, Naomi, Reine des Fleurs, Robin Hood; Tea-scented China, Adam, Devoniensis, Gloire de Dijon; Noisette, Cloth of Gold, Narcisse, Triomphe de Rennes. These, judiciously gathered and grouped—for there is great art in knowing *when* to cut and *where* to place—will not be readily beaten. Only consider what a glorious variety of colours! What a contrast, for instance, between Cloth of Gold and Boula—Lord Raglan and Devoniensis! But there is one great defect in this pan; it wants a bloom, pure white and perfect in shape. “Oh where, and oh where,” will this roc’s egg be laid for us? In other points it will bear criticism. I have omitted Prince Léon, not because I doubt Mr. Rivers (a drummer-boy might as well contradict a field-marshal, a cock-sparrow challenge an eagle, or a glow-worm attempt to outshine the moon), when he calls this “the most beautiful Rose known,” but simply because in the midland counties I have rarely seen it “in character.” By the bye, though I myself should esteem it treasonable to murmur against an edict which emanated from Sawbridgeworth, certain ladies of my acquaintance are by no means so particular. I wrote to you last autumn as to a disturbance got up by certain *Bloomers*, in my garden, and repressed with difficulty by the good sense of the Roses in general. I am sorry to note some revival of discontent. I heard Miss Inermis, who certainly was a belle last season, declaring that “Mr. Rivers never dared have *cut* her, only he knew (the coward!) that she had no thorns to scratch him with.” Noemi and Joan of Arc attempted to console her by saying, that “poor old gentleman, he was getting very short-sighted, and could no longer appreciate real beauty. Indeed, it was a melancholy change, and they could hardly recognise in him the dear, charming fellow who, in 1851 and 1852, had paid them such pretty compliments, and made them really blush, as he *would* talk of their ‘beautiful shapes.’” I do not much sympathise with Miss Inermis and Joan of Arc, because they are themselves somewhat “inconstant;” but I do heartily condole with little Miss Noemi who only resembles Phyllis, the coquette, in this, namely, that “she never fails to please.”

The subject of exhibition suggests a few words in conclusion, with reference to the NATIONAL ROSE SHOW, first proposed in the pages of the *Florist*. In compliance with the advice of men most competent to give it, the exhibition will be held in London on or about the first day of July. There is every reason to believe that it will be a great success. As it has been proved that the Dahlia, Carnation, and Chrysanthemum constitute each by themselves an interesting and attractive show, we cannot doubt that the Queen of Flowers will charm in her own unaided beauty. From Rose growers, amateur and professional, I would ask two favours; and I feel confident, from the warm and friendly sympathy already expressed, that they will be granted. In the first place, I would ask them so to respond to the appeal which will be made next month by advertisement, to their purses, that our schedule may be a munificent one; and secondly, to regard this exhibition in the spirit which first suggested it, not as a mere matter of

speculation or of rivalry, but as a festival in honour of the Rose, a knightly tournament not a selfish war.

It will be sufficient for Rose growers to know that the project is approved by such men as Mr. Rivers and Mr. William Paul, and for florists to be told that a gentleman, so closely connected with this magazine, that it must suffice to say that his initials ever stand for Certain Triumph, lends his cordial and energetic aid.

And so, farewell awhile, my brothers !

S. R. H.

THE PINE APPLE.

(Continued from page 335.)

Pits and Frames for growing the Plants.—For suckers just potted a common Melon frame, rather deeper than they are usually made, is the best to start with ; a bed of half stable dung and leaves mixed well together should be made three or four feet deep ; when this becomes warm place on it the frame and sashes, and fill up the inside with six inches of tan or dry ashes in which to plunge the pots.

I am supposing the time of year July or August, and that the suckers have been recently taken from the plants producing fruit. Do not let them lie about to dry, as some recommend, but pot them at once, first removing the small scale-like leaves from the base of the sucker, when the young roots will be seen, and afterwards cutting an inch of the lower part of the sucker off smoothly.

The compost I have named. The pots should be five inches over, and when the potting is completed plunge them to the rim of the pot in the tan or ashes, adjusting the frame, that when the plants are in, their tops shall be three or four inches from the glass.

Throw a handful of clean straw over the glass during the middle of each bright day, for a fortnight. A piece of netting or thin canvas will answer the same end. Slight shading only is necessary. Give a little air to the frame early each morning ; increase this about 9 A.M., and again at 11. Should the thermometer kept in the frame indicate a higher temperature than 85° at 3 P.M., you may reduce the air, unless the weather is very hot, finally closing up at 5 or 6 P.M., according to the weather. The heat inside the frame, after closing, may reach 95° without any danger arising. Remove the shade in the afternoon, and at closing time sprinkle the plants over with soft water, merely damping them, as they will not want water at the root for a week after potting, when a moderate quantity should be poured over the soil in the pots. In ten days the plants will commence growing. In a fortnight or three weeks shading may be dispensed with, and a little air left on the frame all night, unless very cold.

The bottom heat for Pines at all times should be kept about half-way between 80° and 95°, inclining towards the latter point when the plants are growing, and to the former during winter ; this, however, for older plants than we are describing, for young plants should be KEPT

GROWING till they are large enough TO FRUIT. If, therefore, your bottom-heat is 90° , or near it, all will be right.

In one month, on turning the earth out of the pots, you will find they are rooting freely; strong white roots will be seen interlacing themselves through the soil and coiling round the ball of earth. In six weeks they will require shifting into larger pots. Our good old-fashioned Pine-growers would have been startled when advised to pot young Pines in September or October—just, they would observe, as they are going to *rest*. Now, as before observed, I don't want them to rest at all. My object is to keep them growing as long as I can, for *resting* Pine plants for five or six months in the year may be likened to farmers who used to give their land a fallow every third year; but who thinks of that now? So Pines do not require rest till they are large enough to fruit.

The plants will now take 7 or 8-inch pots, and although they might be well kept in the frame even during winter, a low pit with a hot-water pipe running round it, to help them in very severe weather, will be much better and less trouble to manage. I am supposing there are dung linings round the bed, and that the hot-water pipes need only be used to dry up damp and keep up the temperature when the linings are not sufficient of themselves. If the pit is solely dependant on the hot-water pipes for supplying heat, the application of fire-heat must commence when the top-heat of the pit falls below 65° by night. Of course a bottom-heat of either well prepared leaves or tan must have been got ready and worked up to the usual temperature of 90° , and the plants will require plunging wider apart, and brought up as near the glass as recommended above. If the suckers were strong and bushy, a foot apart, plant from plant, will not be too much.

Take care the glass is clean, to admit all the light possible, and that it is also in good repair, to prevent any dripping inside, which falling into the hearts of the plants would injure them, and perhaps rot them entirely. We are now in November, and if the weather is mild and sunny, a *deal* of air must be given, as the plants will grow very fast. The day temperature may be kept down to 80° in sunshine, and 65° by night, closing by four in the afternoon, giving air very early, and increasing it according to the state of the weather.

If dung linings are used solely for keeping up the heat, these must be attended to, and during long-continued wet or dull weather, fire applied to warm the pipes, to dry the internal air; this will be more necessary, however, in December than earlier in the year. A covering of mats, felt, or some such material must be applied, to maintain the required night temperature of 65° .

STOKE NEWINGTON CHRYSANTHEMUM SHOW.

THE Eleventh Annual Meeting of this Society was held on the 17th and 18th ult., in the Manor Rooms, as heretofore. The arrangement of the tables was a great improvement over that of former years, and reflects greatly to the credit of Mr. Rhodes, one of the committee, by

whom it was suggested and carried out; for, without reducing the amount of table room, greater facilities were afforded for a continuous promenade, thus wholly avoiding much of that inconvenience and crowding which the confined space of the room seemed to enforce. We cannot but set the general collection of blooms and plants as a little below the quality of former years. If the blooms were not quite so large as we have seen them, they were of excellent quality. Yet we felt the loss of the Weatherill Pompones, and the Taylor and Sanderson collections of cut blooms; these, which have for some seasons past played most conspicuous parts in the general awards, were not now forthcoming, to the great loss of the society. But the advent of a new plant exhibitor, Mr. Holland, of Hounslow, must be received as auguring well for the future, and his success—that of first prize, a noble cup, for 6 Pompones—must have been a cheering reward for the necessary toil in cultivating his specimens. His plants of Bob and Brilliant were really fine; not so his Comte Achille Vigier, which, even at its best, is of a mixed and ill-defined colour, unworthy the attention of a grower of taste.

That the show was well furnished may be gathered from the awards, prizes being given to two-thirds of the exhibitors in each class, and extended to 6 prizes for 24 blooms, 9 prizes for 12 blooms, 8 prizes for 6 blooms, 3 prizes for 6 Anemone blooms, 3 prizes for Anemone Pompones, 3 prizes for maiden growers (6 blooms), 4 prizes for 6 plants of Pompones, 2 prizes for 6 plants of the large-flowering kinds, with prizes to specimen plants—a total of 40 prizes—were thus adjudicated, whose value in the aggregate was something over £80. The four principal prizes were silver cups, costing £23. Of visitors there were exceeding 1000; and, as usual, not a few from the most distant parts of the kingdom.

The awards were as follows:—Best 6 plants, Mr. Argent, with Albin, Defiance, Christine, General Havelock, Vesta, and Unknown; 2nd, Mr. James, Vesta, Albin, Christine, Mount Etna, Plutus, Pilot; the collection shown by Mr. Scruby was also very meritorious. Best single specimen, Mr. James, with Annie Salter; 2nd, Mr. Argent, with Madame Camerson. Best 6 plants, Pompones, Mr. Holland, with Comte Achille Vigier, Brilliant, Pluie d'Or, Cedo Nulli, Bob, Duruflet; 2nd, Mr. A. Wortley, with St. Thais, Cedo Nulli, Requiri, Drine Drine, Brilliant, Duruflet; 3rd, Mr. Scruby, with Duruflet, Drine Drine, Trophe, Helena, Madame Roussellon, Bob, Graziella; the other collections were, for the most part, formed of varieties similar to the foregoing. Best 24 blooms, Mr. A. Wortley, with Themis, Plutus, Aregina, Beauty, Annie Salter, Lycias, Goliath, Nonpareil, Madame Miellez, Arista, Pio Nono, Dupont de l'Eure, Hermione, Rosa Mystica, Madame Andrey, Racine, Versailles Defiance, Elizabeth, Stella Globosa, Miss Kate, Stafford, Marquis de Melleville, L'Esenir, Yellow Formosum; 2nd, Mr. Bird, with Anaxo, Aregina, King, Themis, Trilby, Goliath, Queen of England. Maiden Growers: 1st, Mr. Peasgood; 2nd, Mr. Worth; 3rd, Mr. Glover. Best 6 Anemone blooms, Mr. A. Wortley, with Madame Godereau, King of Anemones, Gluck, Marguerite d'Anjou, Fleur de Marie, Nancy de Sermet;

2nd, Mr. Bird, with Gluck, Marguërite d'Anjou, Marguerite de York, Madame Godereau, Eclipse, Nancy de Sermet. Best 6 Anemone Pompones, Mr. A. Wortley, with Rose Marguerite, Jeannie, Hachette, Regulus, Autumnus, Tomette, Margueritedette, Nonpareil, Madame Lebois, Hermione, Madame Andrey, Voltaire, Arc-en-Ciel, Versailles Defiance, Plutus, Pio Nono, Yellow Formosum, Stella globosa, Miss Kate, Stafford, Albin, Formosum, The Warden, and Dupont de l'Eure; 3rd, Mr. James, with King, Queen of England, Themis, Goliath, Beauty, Anais, Nonpareil, Madame Andry, Albin, Dupont de l'Eure, Formosum, Campestroni, Madame Lebois, Trilby, Christopher Columbus, Defiance, Madame Miellez, Plutus, Arc-en-Ciel, Miss Kate, Gloire de Toulouse, Yellow Formosum, Hermione, Stella Globosa; 4th, Mr. D. Monk; 5th, Mr. Oubridge; 6th, Mr. Elliott. Best 12 blooms, Mr. D. Monk, with Annie Salter, Themis, Queen of England, King, Anaxo, Goliath, Nonpareil, Beauty, Plutus, Christopher Columbus, Trilby, Dupont de l'Eure, Voltaire, Hermione; 3rd, Mr. James, with King, Queen of England, Themis, Beauty, Goliath, Nonpareil, Dupont de l'Eure, Anaxo, Madame Miellez, Plutus, Madame Andrey, Formosum; 4th, Mr. A. Wortley, with Beauty, Aregina, Nonpareil, Themis, Madame Miellez, Racine, Miss Kate, Hermione, Dupont de l'Eure, Madame Andrey, Arista, Plutus. Best 6 blooms, Mr. D. Monk, with Queen of England, Themis, Beauty, Nonpareil, Dupont de l'Eure, Plutus; 2nd, Mr. James, with King, Queen of England, Beauty, Plutus, Dupont de l'Eure, Nonpareil; 3rd, Mr. Oubridge, with Queen of England, Themis, Nonpareil, Stafford, Plutus, and Dupont de l'Eure.

The bloom of Chrysanthemums has been very fine generally in the south this season, both out of doors and protected.

SOMERLEYTON PARK, SUFFOLK.

(Concluded from page 329.)

CONNECTED with the winter garden is another conservatory, designed originally for a site in the kitchen-garden, but now erected close by the winter-garden house. The Vines are planted inside. The front border, in which they are planted, may be represented as a series of slate boxes, 2 ft. wide and 2 ft. deep, placed inside the front wall, and level with the window sill; and so far as our memory serves, each box or division is in length nearly the width of the sashes, leaving a space between each of about 4 inches; a flow and return hot-water pipe passes beneath this border, and the space between the divisions is for admitting the heat from the pipes to the body of the house, and as the border has a slate bottom clear of the pipes the heated air escapes also from below. During the forcing period the soil in this border will always have a mean temperature of not less than 75°, kept up by the hot-water pipes below and the hot air passing from the pipes between the divisions. Arches in the front wall permit the passage of the Vine roots from the

inside to the outside border, which is also heated in nearly a similar manner, a flow-pipe being carried to the front of the border, along which it passes, and makes three or four returns. By this means the border is heated to a temperature averaging about 70° while forcing is going on. The pipes are laid in dry cross drains, which are again intersected at right angles by others to equalise the heat, so as to warm equally the under surface of the border; and this Mr. Bradley finds, from a daily registration of the heat in the drains, to be the case, without any trouble or anxiety. The upper surface of the borders is also protected from rain and snow by tarpaulings secured to a framework laid over the borders, so as to allow of its being rolled up during fine weather, and laid down when it is wished to keep rain from the border. Taken altogether, we never saw better provision made for supplying vinery borders with bottom heat, or for protecting them from the influence of bad weather. From the above details of construction, our readers will not be surprised to hear that we never saw Vines exhibiting greater vigour, or producing fruit of better quality. One or two of the vineries were cleared off, but the later houses contained crops of magnificent Muscats and Hamburgs. We observed, too, a Vine of the Barbarossa with a full crop of immense bunches, which gave great promise of colouring well.

The value of bottom heat as a great auxiliary to the forcing of exotic fruits has been frequently pointed out in this work, and what we witnessed at Somerleyton is quite confirmatory of the soundness of the theory.

The garden walls are mostly covered with glass—one after the Trentham model. In one we noticed Figs and Apricots; another contains some fine Peach-trees, with dwarf Plums trained near the glass; the crops had been good, and some fine late Peaches, and Golden Drop and Jefferson Plums, were still remaining. We rather incline to the opinion that these glass *casings* for walls may prove more valuable as retarding houses than for ripening ordinary crops of wall fruit; for, provided you give sufficient protection to the trees till the fruit sets, and then throw the house open day and night, the fruit will be considerably later than on the open wall, and from the dryness which can be maintained in these structures, Peaches and Plums may be kept in good condition till December; and they have one great advantage over open walls, which is, that birds and insects can be effectually excluded. We have several late Peaches—as the Bourdin, Teton de Venus, Late Admirable, and Salway, which probably by these means can be obtained in fair condition up to the end of November. Mr. Bradley is an enthusiastic fruit grower; his collections of Pears and Apples are extensive. On the walls we observed fine crops of the most popular kinds, as well as on pyramidal trees. Of some new kinds under trial the following have borne fruit this season:—Alexandre Bivort, Alexandre Lambre, Bergamotte d'Esperen, Beurré Beckmans, Beurré Gris d'Hiver Nouveau, Beurré Sterckman, Josephine de Malines, Doyenne Bussoch.

The orchard lies on the opposite side of the road, leading to the offices. The crops this season are very good, and fruit more than

usually fine, of which the fruit-room bore evidence. We took a hasty walk through the Melon-ground; examined the pits, in which fine crops of Melons were ripening, and where every convenience for forcing vegetables, &c., is met with. We also noticed one or two plant houses acting as nursery and reserve houses for the winter garden; as also the cropping of the kitchen garden, which was admirable.

The kitchen garden, being near the mansion, has had a good deal of architectural embellishment bestowed on the walls, doorways, &c. An undulating lawn, tastefully planted, separates it from the flower garden and house, and there are many interesting trees and shrubs spread over the grounds, which we have not room to particularise.

The soil here is a stiff clay, resting on the sands and gravels which more or less cover this part of the coast. That with moderate preparation it is well adapted for fruit-tree culture is evident. We noticed the health and vigour of the young Pear-trees on the borders, which notwithstanding were forming fruit-buds in abundance. The Apple-trees throughout the district from Ipswich to Lowestoffe bore the same healthy character, and were producing large crops. On this point we heard, from several quarters, that some fine varieties of Apples, unknown elsewhere, are to be met with in Suffolk, which we hope another day will find their way to the Pomological Society for identification. The climate of this part of England being drier than the rest of the kingdom may have something to do in inducing that tendency to productiveness apparent even in very young trees of Apples and Pears, and which, combined with a suitable soil, produces fruits in great perfection.

We cannot conclude without expressing our best thanks to Mr. Bradley, for his kindness in explaining all the details of management connected with this interesting place.

THE PAMPAS GRASS (*GYNERIUM ARGENTEUM*).

WITHIN the last few years those who were so fortunate as to possess plants of the Pampas Grass, and transferred them to the open soil, have been gratified in witnessing each summer the beauty of its long slender leaves, which form bundles or sheaths at their base, and rise to the height of 6 or 8 feet, when they gracefully curve outward, giving the plant the appearance, at a distance, of a hemisphere of beautifully curved lines; towards autumn, when the leaves have attained their full development, the flower-stems appear from the centres of the strongest sheaths, shooting up perpendicularly 3 or 4 feet above the mass of foliage and gradually unfolding a plume of elegant feather-like flowers, which at first are of a silky whiteness, but assume a darker tint as the season advances. The striking beauty of this plant in the autumn was the theme of all who saw it, and a large supply of seeds having been distributed by the Horticultural Society, as well as sent out by the trade, the plant is now met with in most gardens of any repute.

The fine weather of the present season has been highly favourable to the development of this magnificent Grass, and has fully established its popularity, about which there cannot now be a question. We have received from several of our correspondents dimensions of plants under



their care, varying from 12 to 14 feet high, and 10 to 18 feet in diameter, with from a score to fifty heads of flowers. The absence of any autumnal frosts, hitherto, has contributed also to preserve the flower-spikes in a state of almost pristine freshness, for we have remarked

when frosts have occurred in September, about the time when the flower-stems appeared, they have injured them, as at that stage they are succulent, and consequently tender, and are also then frequently broken by high winds.

Although the Pampas Grass is not very particular about soil, provided it be open, yet to ensure a rapid growth a deep rich soil, well manured, will be found desirable; the plants should likewise be very liberally supplied with water during the period of active growth. The situation should be one fully exposed to the sun, with a dry subsoil, and as much as possible sheltered from high winds, which, as we have stated above, will sometimes break off the flower-stems when young, and thus rob the plant of a part of its beauty. The plant ceases to grow after November, and the frosts of winter will induce a state of rest, and may brown and even kill the upper parts of the leaves, in exposed places, down to the stem; but if the subsoil is dry no harm will happen, and on the return of warm weather a fresh growth will commence. The plant increases itself in bulk by forming a large increase of stoles, or new bundles of leaves, and with good treatment soon becomes a large specimen.

This Grass has now become cheap, and the question of what can be done with it may now be discussed more fully than when its scarcity made it a pet, and of course the most prominent part of the lawn or flower-garden was allotted it. Although graceful in the extreme, we cannot bring ourselves to consider the flower-garden as exactly the place for this Grass. From March to July there is nothing in its appearance that can be considered ornamental; after the latter period the growth is very rapid, and it is then that its claims to an ornamental plant can be fully appreciated. Speaking for ourselves, now we see what effect it is capable of producing, we intend selecting an open site for it, backed up with evergreens, against which the appearance of its silvery plumes would admirably contrast; it might also be formed into groups on the margins of lakes, or running streams of some magnitude, for it would be bad taste to plant so grand a thing near a small pool or puny brook. If planted near water, the ground should be elevated above the ordinary level; for, unlike our own *Carexes*, this is not a bog plant, strictly speaking, but is found in a state of nature inhabiting the vast *pampas* (whence its name) of Buenos Ayres, level plains extending for hundreds of miles in La Plata, and reaching from near the shores of the Atlantic to the foot of the Andes. On these immense plains, which contain but few varieties of plants, and scarcely any trees or shrubs, vegetation is exposed at times to extreme alternations of drought and floods—the *pampas* presenting at certain seasons all the appearance of a dry and parched vegetation, and at other times, of almost unequalled verdure. The period of blooming in this country corresponds with the summer of its native land, and we may infer from its native habitat that a sunny open exposure, with a dry state at the roots while in a dormant state, and an abundant supply of moisture while growing, will very nearly approximate to the conditions of its native climate.

The Pampas Grass may be propagated by division of its numerous

stoles with a piece of root to each, or by imported seed (for we do not imagine, from its season of flowering in this country, it will ripen any seeds here), which should be sown on the surface of broad pans or boxes, filled with sandy peat. The soil should be kept moist and shaded, when the young plants will soon appear, and may be pricked out into other pans till they are large enough for transferring to the open ground. Botanists describe the *Gynerium* as being dioecious, or having male and female flowers on different plants; the male flowers being wanting in size and brilliancy of colour, any plants found producing them should be destroyed, as the propagation of the female or more ornamental variety is easily effected, and plants only from this kind should be made use of.

By way of helping our description, and to enable our readers better to judge of the effect produced by the Pampas Grass when in bloom, we append a woodcut of a plant growing in the beautiful grounds of Stoke Park, the seat of the Right Hon. H. Labouchere.

That plant of this Grass is one of a lot of seedlings raised in 1854, shifted into an 11-inch pot in the autumn, and wintered under glass, merely keeping the frost from it; it was planted out in May, 1855, it grew luxuriantly, and in October, 1856, it had eleven fine spikes of flowers, and in the present year it has forty-two spikes, from 10 to 11½ feet in height.

The subsoil where it is growing is gravel to within a few inches of the surface. A pit was taken out for it 3½ feet in width and 2 feet deep, and filled up with loam, with a mixture of charcoal and well-rotted manure.

We shall at some future time notice a few of our own indigenous Grasses, many of which are very ornamental, and are well worth cultivating for special objects.

NOTES ON THE MONTH.

NOVEMBER, the month of fogs and gloom, is now drawing to a close, and in place of the usual accompaniments of the season, we have been enjoying days of balmy sunshine, reminding us more of autumn in "*la belle Italie*," than the murky atmosphere of England. Taken on the whole, the season has been one of the most propitious for many years to the farmer and gardener. The price of agricultural produce shows this of the former, and the abundance and high quality of orchard fruits speak for the latter; so let us hope our poorer neighbours will again partake of plenty. The mildness of the season has continued up to the day we write, with the solitary exception of a slight frost on the 14th, which cut off Dahlia blooms in some situations. But this scarcely affected garden Geraniums, Verbenas, or even Heliotropes, which even yet continue to cheer us with the faded remains of their summer glory. The 18th and 21st were particularly brilliant days. Butterflies were on the wing, and the missel-thrush enlivened the woods by his well-known notes during the day. What a gay appearance the blooms of

the Chrysanthemums give to our town and village gardens at this season! Their showiness and comparative hardiness should induce a more general growth of them as an out-door plant, selecting a good proportion of warm-tinted colours for harmonising with out-door vegetation at this season. By-the bye, let me recommend to those of your readers who have not yet planted it, *Skimmia japonica*, sent by Mr. Fortune from China. This is an evergreen shrub, with bright glossy foliage, and terminal clusters of scarlet berries, more beautiful even than our own native Holly. When once the *Skimmia* attains a moderate size, the appearance of it through the winter, covered with its coral berries, is very striking; and, unlike our Holly, young plants of this produce berries in great profusion. Another introduction by the same gentleman is equally valuable; I allude to the *Berberis* (*Mahonia*) *japonica*, an evergreen with remarkably fine foliage, and producing long racemes of rich purple berries. Of recent importations in the way of shrubs, these two are decidedly the finest.

I read the other day, in a recent number of the *Builder*, an article entitled "Art in our Parks," wherein the question of Art, as applied to the improvement of the London Parks, is considered and commented on in a style not over complimentary to the powers at Whitehall Place. The writer has my best wishes for giving prominence to his opinions, for certainly the Metropolitan Parks and Squares confer no credit on the Board of Works. To show these remarks are not unfounded, let any gentleman with an ordinary amount of taste or knowledge of landscape gardening go to Battersea Park, yet unfinished—or to Victoria Park, which is—and he can judge for himself how miserably *Art* has been represented at both places; and when we consider the sums lavished on these parks, which have been enormous, surely something more worthy of national taste could have been achieved. The older London parks are open to the same objections; for whenever alterations are made, either to the boundary or interior, we get the ever-recurring iron palisading and accompanying belt of mixed trees and shrubs; and as illustrating the manner in which this latter work is performed—we presume under directions from the office—those of your readers who reside in London may remember the new planting near the Marble Arch in Hyde Park, in which we should say, from the appearance of the dead trees we saw in passing by, the failures amounted to fully one-half of those planted. Would that John Loudon were living, to speak out on these discreditable proceedings.

Independent of the mere carrying out or execution, there seems a want of comprehensiveness and unity in every improvement undertaken by the Board of Works in the public parks, which savours more of the "*fortuitous combination of atoms*," than the development of a principle which would add grandeur to the metropolitan parks and squares by architectural embellishments and connecting them with surrounding objects. Why—as the writer observes—cannot architecture be made to blend in various gradations with the turf and trees of our parks and squares, to which it would impart a character, and fill up a void at present sensibly felt? And as the difficulty of cultivating flowers and flowering shrubs becomes every year greater in and near London, let

Art supply the deficiency by entering more largely into the component parts of their *making up*. Fountains, vases, sculpture, and other architectural accessories, if judiciously introduced, would form beautiful combinations with the trees, turf, and water of the parks, and would effect a marked improvement in their character and appearance.

G. F.

[We entirely concur in the latter part of our correspondent's article, and hope the editor of the *Builder* will follow up the subject.—ED. *Florist*.]

DAHLIAS SENT OUT IN 1857.

AT page 341 of our volume for 1856 we gave the opinions of Messrs. Downie, Lamont, and Sivewright on the Dahlias to be sent out the following spring. At page 37 of our present volume Mr. Perry, of Birmingham, kindly gave our readers his impressions of the seedlings exhibited during the autumn of 1856, and which were mostly those that had come under the notice of our more northern friends. After the experience of another season these opinions will be read with increased interest, and if not strictly correct will be found as much so as was possible on so short an acquaintance. Therefore we wish our remarks to be considered as intended to inform our readers as to the estimation in which the varieties enumerated are now held, rather than as criticisms on opinions given twelve months since. In the opinion from Edinburgh we find Midnight, Lady Popham, Marion, Charles Perry, Cherub, Harbinger, Touchstone, Conqueror, Lady Paxton, and Cleopatra described as good, and all these have proved themselves worthy of that epithet. Mrs. Crichet, Mont Blanc, and Mrs. Edwards were considered as only promising, and they have each proved to be failures. We now give the opinion from Birmingham of the best twelve, and place in juxtaposition our opinion of that number.

MR. PERRY'S LIST, BEFORE THE BLOOM OF 1857.

- 1 Marion
- 2 Lady Popham
- 3 Royal Scarlet
- 4 Cherub
- 5 Lord Cardigan
- 6 Roland
- 7 Mrs. Edwards
- 8 Mrs. Legge
- 9 Duke of Devonshire
- 10 Midnight
- 11 Lady Franklin
- 12 Mrs. Crichet

OUR OPINION OF THE BLOOM OF 1857.

- 1 Cherub
- 2 Lady Popham
- 3 Lady Franklin
- 4 Midnight
- 5 Royal Scarlet
- 6 Satirist
- 7 Touchstone
- 8 Duchess of Beaufort
- 9 Roland
- 10 Saturn
- 11 Harbinger
- 12 Lord Cardigan

Marion did not come out, but as it maintained the high position assigned it by Mr. Perry we have only to deal with Mrs. Edwards, which proved flat and uncertain, as did Mrs. Legge, also the Duke of Devonshire, and Mrs. Crichet proved to be very bad, so that eight of Mr. Perry's list still remains to be considered decidedly fine flowers.

Airdale Beauty has been seen good in the north, but south it has not produced a good flower. Fairy Queen is a large peach-coloured flower, and of very fine shape, but is uncertain. Delta, a very good yellow, is also, unfortunately, inconstant. Sidney Herbert, Edward, Fenella, and Lord Cork, although they can only be deemed second rate, will be sometimes found useful. Fanny Dodds, Cardinal, Mont Blanc, Cavalier, Mrs. Crichton, Mrs. Edwards, Duke of Devonshire, and Brittle's two flowers, Florence Nightingale, and Trinity Beauty; may be fairly set down as failures, not to be grown again.

The fancies sent out last spring comprise some very excellent flowers, and, although early in the season, Lady Paxton comes with a hard eye; we must place her ladyship at the head of our list, to be followed by Charles Perry, Cleopatra, Conqueror, Fancy King, and Carnation.

The general bloom of Dahlias has this year been not only unusually good, but has lasted unusually long, fully a month later than we are accustomed to see them. We saw a good stand of Dahlias exhibited on the 29th day of July, and now daily see many in good bloom. The Dahlia has thus contributed to make our gardens gay for no less a space than one-third of the whole year, or four consecutive months.

CALENDAR FOR THE MONTH.

Auriculas.—These should be quiet at this season; give them sufficient water to keep them alive only; but keep them clean of all dead foliage, and give plenty of air.

Azaleas.—Those intended to flower early should have a temperature of about 50 degrees by night and 60 degrees by day; they will also require attention in watering. Those for late flowering should have as much air as the state of the weather permits, and they should have just sufficient heat and water to keep them in a healthy state.

Calceolarias.—Shrubby and half shrubby kinds are now freely propagated in gentle heat; they also grow fast in an intermediate house, but like most soft wooded plants soon get infested with green-fly if not kept clean, and fumigated occasionally.

Camellias.—Attend carefully to the watering of these; give air when the weather is fair, but this house should on the whole be kept tolerably warm, without using too much fire heat. Most of the sorts that have had previous attention, with regard to fire heat, &c., will now be in full flower, and the general collection will be advancing into bloom.

Carnations and Picotees.—These will now require going over, to clean them of all dead foliage, and slightly stir the surface of the soil; give scarcely any water, but keep the lights off during fine weather.

Cinerarias.—These plants will now require particular attention to keep clean; look over frequently, and pick off any decaying or decayed foliage, and sulphur such as have the mildew; stand the plants as thin as your room will allow, so that they may get a free circulation of air through them; place as near the glass as possible, and be careful not to let them have a cold frosty current, which will curl and disfigure the

foliage; thin out the small leaves, and peg down the large foliage of the large plants; fumigate occasionally to prevent the green-fly; remove a few of the earliest kinds to an intermediate house for early flowers.

Cold Frames.—Protect well against frosts, but be careful to give air whenever the weather permits, so as to guard against damp, which is as fatal to many things at this season as frost. Water in the forenoons and then only when absolutely required.

Conservatory and Show-house.—Make these as gay and attractive as possible, for at no other season of the year will they be more appreciated than at the present, when there is little or nothing, in the way of flowers, inviting out of doors. Among the very many beautiful things we have now-a-days for winter decoration there is scarcely anything to surpass good specimens of Azaleas, when in full flower. Good plants of Camellias are also very showy. Epacris and Heaths are also very useful for decorative purposes at this time. Chinese Primroses, which have been much improved of late, when well done are very beautiful. Add to these a few fine foliaged plants, and a few of the early forced bulbs, and you have abundance wherewith to make a good display—not to mention Chrysanthemums, Begonias, &c. Pay the greatest attention to cleanliness; ventilate freely when the weather permits; water in the forenoon such plants as require it; dry the houses by lighting slight fires during the day. In frosty weather fire heat will be necessary, but at night keep no more than is absolutely required.

Cucumbers.—See directions in previous calendars.

Dahlias.—Seed may be cleaned during this dull time, and wintered in a tolerably dry place; damp or very dry situations will be alike injurious.

Forcing Hardy Shrubs.—Introduce Rhododendrons, Azaleas, Kalmias, Rhodoras, Deutzias, Lilacs, Roses, &c. See directions in last month's calendar.

Forcing Ground.—By setting a good batch of Seakale, Rhubarb, and Asparagus roots to work about every three weeks on a nice regular bottom heat there will not be any difficulty in having a constant supply of these things. Attend to the watering, &c., of French Beans—and sow for succession; sow Mustard and Cress weekly.

Greenhouse (hard-wooded).—As fire heat will be necessary in frosty weather, be as chary as possible in the use of it; water when necessary; ventilate freely when the weather permits, but be careful to guard against cold currents; occasionally turn the specimen plants, and look over for insects. *Soft-wooded.*—Fuchsias intended to be grown large specimens should now be encouraged. Spare no labour to keep everything in a healthy vigorous state.

Peach-forcing.—Those who require Peaches in May should lose no time in setting the early house to work. The trees should be well washed with a mixture of clay, sulphur, soft soap, lime, and tobacco-water, made to about the consistency of paint; the shoots should then be neatly tied to the trellis-work, and the borders should have a good soaking of water. Cover the outside borders with fermenting material,

sufficient to cause a genial warmth in them. Syringe the trees two or three times daily, and maintain a moist atmosphere. For the first three or four weeks keep up a temperature at night of from 40 to 45 degrees, and by day of from 50 to 55 degrees fire heat, with an increase of 8 or 10 degrees by sun heat.

Pelargoniums.—These will require much care to prevent their getting drawn, as many of them are growing freely, and, therefore, will want plenty of air at all favourable opportunities, and all the room that can be spared. Any plants which require shifting should be done at once. Keep them close for a few weeks, until they have struck root into the fresh soil. Attend to former directions as to keeping the plants clean, especially the fancies, as the decaying foliage injures the branches if not quickly removed, and also the tying out and training of the shoots, particularly those that have become a little drawn; by so doing they will be greatly strengthened and benefited, if not crowded; the plants should be kept tolerably dry at this season, therefore, do not be too liberal in the supply of water.

Pinery.—Avoid everything that may in the least degree cause excitement at this season. See directions in previous calendars.

Pleasure Ground.—Continue planting in favourable weather; secure all newly planted trees against strong winds; protect all tender trees and shrubs; keep the grass well swept and rolled; clean and roll walks; push forward alterations.

Roses.—Those of our readers who have neglected last month's advice as to planting, may, while the weather keeps open, still, by availing themselves of the present open weather, hope for blooms next season. Protect Teas and Chinas on their own roots with Moss, Fern, or coal ashes; where the ground is stiff, three or four inches thick may be used, and after being well saturated with liquid manure, dug in in the spring, with much advantage to the plants. Standards of delicate varieties may be taken up and laid in some protected corner, with their heads to the north, covered with a mat.

Stove.—Pay great attention to cleanliness; pick off all dead leaves and flowers; examine the plants frequently for insects; water only when absolutely necessary, and then do it thoroughly; ventilate as freely as the weather permits; maintain a temperature of from 50 to 55 degrees by night, and from 60 to 65 degrees by day, fire heat.

Strawberry Forcing.—A good batch of Black Prince and Keens' Seedling should now be set on a gentle bottom heat in a pit; they must be kept near the glass, so as to have all the light possible. Air should be given whenever the state of the weather permits. See that the stock of plants is safe in frosty weather.

Vinery.—Where the roots are all in the outside border the greatest attention must be paid to the coverings of fermenting material, so as to keep a regular nice heat in the border without fluctuating. Raise the temperature gradually as the young shoots advance in growth. The temperature at night should not exceed 60 degrees until the bunches are coming into bloom, when it should be kept at about 65 degrees, with a temperature by day at that time of about 70 degrees. Rub off all superfluous shoots as soon as possible, and attend regularly to the tying down and stopping of those that are retained.

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